

BOSTON PUBLIC LIBRARY



3 9999 06316 204 2

No. 9331-0744a3



45-50
1907

GIVEN BY

Mass. Bureau of Statistics of Labor

LABOR BULLETINS

OF THE

COMMONWEALTH OF MASSACHUSETTS.

These Bulletins contain a large variety of interesting and pertinent matter on the Social and Industrial Condition of the Workingman, together with leading articles on the Condition of Employment, Earnings, etc. The following numbers are the only ones now remaining in print, and will be forwarded upon receipt of five cents each to cover the cost of postage.

No. 29, January, 1904. Eight-hour Day—Licensing of Barbers—Early Closing and Half-holiday Laws of Australasia—Industrial Studies, Proprietors—Palaces for the People—Quarterly Record of Strikes.

No. 30, March, 1904. National Trades Association—Massachusetts-born Living in Other States—Industrial Betterments—A Partial Religious Canvass of Boston—Current Comment on Labor Questions: Child Labor—Bi-monthly Record of Strikes and Lockouts—Prices of Certain Articles of Food in Toronto, Canada, and Massachusetts—Industrial Agreements—Labor Legislation in Other States and Foreign Countries—Recent Legal Labor Decisions—Statistical Abstracts.

No. 31, May, 1904. City Labor in Massachusetts—Review of Employment and Earnings for Six Months ending April 30, 1904—Average Retail Prices in 17 Cities—Bi-monthly Record of Strikes and Lockouts—Editorial, Rev. Jesse H. Jones—Industrial Agreements—Current Comment on Labor Questions: Open and Closed Shop—Labor Legislation in Other States and Foreign Countries—Recent Legal Labor Decisions—Excerpts Relating to Labor, Industrial, Sociological, and General Matters of Public Interest—Statistical Abstracts.

No. 32, July, 1904. Child Labor in the United States and Massachusetts—Net Profits of Labor and Capital—The Inheritance Tax—Absence after Pay Day—Pay of Navy Yard Workmen—Labor Legislation in Massachusetts for 1904—Industrial Agreements—Current Comment on Labor Questions: Eight-hour Workday—Recent Legal Labor Decisions—Excerpts Relating to Labor, Industrial, Sociological, and General Matters of Public Interest—Statistical Abstracts.

No. 36, June, 1905. Tramps and Vagrants. Census of 1905—The Loom System—Weekly Day of Rest—Wages and Hours of Labor on Public Works—The Census Enumerators of 1905—Average Retail Prices, October and April—Semi-annual Record of Strikes and Lockouts: Six Months ending April 30, 1905—Labor Legislation in Massachusetts for 1905—Current Comment on Labor Questions: Profit Sharing—Industrial Agreements—Recent Legal Labor Decisions—Excerpts Relating to Labor, Industrial, Sociological, and General Mat-

ters of Public Interest—Statistical Abstracts.

No. 40, March, 1906. The Taking of a Census—The True Basis of Political Representation—The Restriction of Immigration—Free Employment Offices—Trade Unions: United States and Foreign Countries—Wages Paid Employees in the Navy Yard and Private Establishments—Current Comment on Labor Questions: Immigration—Industrial Agreements—Trade Union Notes—Recent Legal Labor Decisions—Excerpts Relating to Labor, Industrial, Sociological, and General Matters of Public Interest—Statistical Abstracts.

No. 42, July, 1906. Non-Collectable Indebtedness—Pawnbrokers' Pledges—Hours of Labor in Certain Occupations—Labor Legislation in 1906—Current Comment on Labor Questions: The Inheritance Tax—Industrial Information—Industrial Agreements—Trade Union Notes—Recent Legal Labor Decisions—Excerpts Relating to Labor, Industrial, Sociological, and General Matters of Public Interest—Statistical Abstracts.

No. 43, September, 1906. Organization of Trade Schools—Textile Schools in the United States—Convention of Labor Bureaus—Maternity Aid—Stone-meal as a Fertilizer—Injunctions against Strikes and Lockouts—Industrial Information—Industrial Agreements—Trade Union Notes—Recent Legal Labor Decisions—Excerpts—Statistical Abstracts—Trade Union Directory for 1906.

No. 45, January, 1907. Income and Inheritance Taxes—Child Labor and the Census—Cotton Manufacturing in Massachusetts in 1850 and 1905—Railroad Pensions in the United States and Canada—Convict Labor in Massachusetts—The President on Labor Matters—Trade Union Notes—Recent Court Decisions Relating to Labor—Industrial Agreements—Current Comment: Old-age Pensions—Excerpts—Statistical Abstracts—Magazine Articles on Labor Topics, 1906.

No. 46, February, 1907. Unemployment in Massachusetts—State Free Employment Office—Insurance against Unemployment in Foreign Countries—The Metropolitan District—Population: Boston and Massachusetts—Labor Legislation: United States and Canada, 1906—Industrial Agreements—Excerpts—Statistical Abstracts—Industrial Information.

LABOR BULLETIN

OF THE COMMONWEALTH OF

MASSACHUSETTS

No. 47

MARCH, 1907.

CONTAINING:

- | | |
|---|---|
| Boston's Taxpayers. | State Free Employment Office. |
| Distributive Co-operation in New England. | Labor Legislation in Foreign Countries, 1906. |
| Industrial Education for Shoe Workers. | Large versus Small Families. |
| Technical Education in England and the United States. | Trade Union Notes. |
| Females in Gainful Occupations—1895, 1905. | Industrial Agreements. |
| Strikes and Lockouts in Massachusetts in 1905-06. | Recent Court Decisions Relating to Labor. |
| | Excerpts. |
| | Statistical Abstracts. |
| | Industrial Information. |

PUBLISHED BY THE
BUREAU OF STATISTICS OF LABOR.

CHAS. F. PIDGIN, *Chief.*

FRANK H. DROWN, *First Clerk.*

WM. G. GRUNDY, *Second Clerk.*



BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
18 POST OFFICE SQUARE.
1907.

CONTENTS.

	Page
BOSTON'S TAXPAYERS, ...	129-131
Total tax warrant, total tax paid, and total number of taxpayers, ...	129
Taxpayers classified by amount of property, ...	130
Taxpayers classified by amount of tax paid, ...	131
DISTRIBUTIVE CO-OPERATION IN NEW ENGLAND, ...	132-145
Co-operative Distribution in New England in 1896, ...	132-134
Co-operation in Massachusetts in 1906, ...	134-145
Law relating to Co-operation in Massachusetts, ...	145
INDUSTRIAL EDUCATION FOR SHOE WORKERS, ...	146-152
TECHNICAL EDUCATION: ENGLAND AND THE UNITED STATES, ...	152-160
England, ...	153-158
United States, ...	158-160
FEMALES IN GAINFUL OCCUPATIONS — 1895, 1905, ...	160
STRIKES AND LOCKOUTS IN MASSACHUSETTS IN 1905-06, ...	161
THE MASSACHUSETTS STATE FREE EMPLOYMENT OFFICE, ...	162-170
LABOR LEGISLATION IN FOREIGN COUNTRIES, ...	170-175
Belgium, Denmark, France, Germany, Great Britain, Italy, Netherlands, Nicaragua, Norway, Rumania, Russia, Spain, and Switzerland.	
CURRENT COMMENT — LARGE VERSUS SMALL FAMILIES, ...	175-178
TRADE UNION NOTES, ...	178-179
INDUSTRIAL AGREEMENTS, ...	179-182
RECENT COURT DECISIONS RELATING TO LABOR, ...	182-184
EXCERPTS, ...	184-189
STATISTICAL ABSTRACTS, ...	190-193
INDUSTRIAL INFORMATION, ...	193-196

MASSACHUSETTS LABOR BULLETIN.

AN OFFICIAL PUBLICATION, ISSUED MONTHLY, FROM THE OFFICE OF THE MASSACHUSETTS
BUREAU OF STATISTICS OF LABOR, ROOMS 250-258, STATE HOUSE, BOSTON.

VOL. XI, No. 3.

MARCH, 1907.

WHOLE No. 47.

Editor: CHAS. F. PIDGIN, Chief of Bureau.

Associate Editors: FRANK H. DROWN, ROSWELL F. PHELPS, FRANK S. DROWN.

BOSTON'S TAXPAYERS.

In the *Boston Sunday Herald* of January 20, 1907, there was printed a list of persons, companies, corporations, associations, etc., each of which paid in 1906 a yearly tax to the city of Boston in excess of *One Thousand Dollars*. The tables which follow have been prepared from the list which appeared in the newspaper mentioned. It was not considered necessary to verify the list by comparison with the assessors' books or the collector's records, as the deductions made from the tables are general in their nature.

The total tax warrant for 1906, upon the basis of which the rate of \$15.90 per thousand was fixed, amounted to \$20,683,628.41, divided as follows:

Real estate, ...	\$16,613,793.93
Personal estate, ...	3,702,906.48
Polls, ...	366,928.00
TOTAL, ...	\$20,683,628.41

The total tax paid by those paying \$1,000 or over is given below.

From males, ...	\$8,824,678.93
From females, ...	1,219,576.65
From companies and corporations, ...	3,662,984.09
From associations, etc., ...	393,207.87
TOTAL, ...	\$14,100,447.54

The number of large taxpayers by sex, etc., is next given.

Males, ...	1,845
Females, ...	521
Companies and corporations, ...	398
Associations, etc., ...	47
TOTAL, ...	2,811

In other words, out of a total tax levy of \$20,683,628.41, the amount of \$14,100,447.54, or 68.17 per cent, was assessed on 2,811 persons, etc., out of a population exceeding 600,000.

In Table I is presented a classification of property with the number of persons owning specified amounts of real or personal estate, and a further specification by sex, etc.

TABLE I. — *Taxpayers Classified by Amount of Property.*

CLASSIFICATION OF PROPERTY.	NUMBER OF PERSONS OWNING SPECIFIED AMOUNTS OF —							
	Real Estate				Personal Estate			
	Males	Females	Companies and Corporations	Associations, etc.	Males	Females	Companies and Corporations	Associations, etc.
Under \$1,000, ...	—	—	—	—	38	6	1	—
\$1,000 but under \$2,000, ...	—	—	—	—	66	4	2	1
\$2,000 but under \$3,000, ...	2	1	—	—	45	6	3	—
\$3,000 but under \$4,000, ...	—	—	1	—	26	3	1	—
\$4,000 but under \$5,000, ...	—	—	1	—	22	5	2	—
\$5,000 but under \$10,000, ...	19	2	1	—	78	13	2	4
\$10,000 but under \$15,000, ...	11	5	—	—	55	9	9	—
\$15,000 but under \$25,000, ...	37	19	3	—	70	14	10	1
\$25,000 but under \$50,000, ...	141	64	15	—	163	39	16	2
\$50,000 but under \$75,000, ...	341	120	23	6	123	36	50	—
\$75,000 but under \$100,000, ...	289	97	18	6	77	15	59	—
\$100,000 but under \$200,000, ...	452	115	44	9	129	31	74	—
\$200,000 but under \$300,000, ...	142	29	19	7	42	8	25	—
\$300,000 but under \$400,000, ...	66	16	16	3	9	3	11	—
\$400,000 but under \$500,000, ...	46	10	4	4	9	2	3	—
\$500,000 but under \$600,000, ...	30	1	7	2	6	2	5	—
\$600,000 but under \$700,000, ...	26	—	7	6	5	—	7	—
\$700,000 but under \$800,000, ...	25	3	4	—	3	—	1	—
\$800,000 but under \$900,000, ...	18	3	5	1	3	1	1	—
\$900,000 but under \$1,000,000, ...	12	1	2	—	2	—	1	—
\$1,000,000 but under \$2,000,000, ...	41	—	20	1	9	—	4	—
\$2,000,000 but under \$3,000,000, ...	16	1	3	—	1	—	1	—
\$3,000,000 but under \$4,000,000, ...	9	—	4	—	1	—	—	—
\$4,000,000 but under \$5,000,000, ...	2	—	3	1	—	—	—	—
\$5,000,000 but under \$6,000,000, ...	1	—	3	1	—	—	—	—
\$6,000,000 but under \$7,000,000, ...	1	—	1	—	—	—	—	—
\$7,000,000 but under \$8,000,000, ...	1	—	1	—	—	—	1	—
\$8,000,000 but under \$9,000,000, ...	1	—	1	—	—	—	—	—
\$9,000,000 but under \$10,000,000, ...	—	—	—	—	—	—	1	—
\$10,000,000 but under \$11,000,000, ...	1	—	—	—	—	—	—	—
\$11,000,000 but under \$12,000,000, ...	—	—	—	—	—	—	—	—
\$12,000,000 but under \$13,000,000, ...	—	—	—	—	—	—	—	—
\$13,000,000 but under \$14,000,000, ...	—	—	—	—	—	—	—	—
\$14,000,000 but under \$15,000,000, ...	—	—	—	—	—	—	—	—
\$15,000,000 and over, ...	1	—	1	—	—	—	—	—
Not stated, ¹	114	34	190	—	—	—	—	—
Not stated, ²	—	—	—	—	863	324	108	39
TOTALS	1,845	521	398	47	1,845	521	398	47

¹ Have real estate, but no personal estate.

² Have personal estate, but no real estate.

There are many noticeable lines in the table. There were 220 persons, etc., who owned real estate assessed for \$25,000 but under \$50,000, and exactly the same number (220) who owned personal estate assessed for similar amounts. Those owning real estate assessed for \$50,000 but under \$75,000 numbered 490, while those owning personal estate of similar value numbered 209. The number owning real estate assessed for \$100,000 but under \$200,000 was 620; those owning personal estate of similar value was 234. The reader can easily make similar combinations or comparisons for other items of the classification.

The last two lines of the table merit consideration. There were 114 males, 34 females, and 190 companies and corporations, a total of 338, that paid a tax in excess of \$1,000 on real estate but did not own any personal estate; on the other hand, there were 863 males, 324 females,

108 companies and corporations, and 39 associations, etc., a total of 1,334, that were assessed on personal estate but did not own real estate.

Those who did not own real estate were probably lessees of residences or business properties, while of the large number not assessed on personal estate many were probably non-residents.

In Table II the taxpayers are classified by amount of tax paid, with specification of sex, etc.

TABLE II. — *Taxpayers Classified by Amount of Tax.*

CLASSIFICATION OF TAXES.	Males	Females	Companies and Corporations	Associations, etc.
Under \$1,000, ...	59	50	6	—
\$1,000 but under \$2,000, ...	899	302	170	15
\$2,000 but under \$3,000, ...	309	74	58	6
\$3,000 but under \$4,000, ...	151	32	29	3
\$4,000 but under \$5,000, ...	84	19	19	4
\$5,000 but under \$6,000, ...	58	7	16	1
\$6,000 but under \$7,000, ...	37	14	10	5
\$7,000 but under \$8,000, ...	34	8	10	1
\$8,000 but under \$9,000, ...	19	2	8	2
\$9,000 but under \$10,000, ...	18	4	6	1
\$10,000 but under \$15,000, ...	74	7	23	5
\$15,000 but under \$20,000, ...	39	1	12	2
\$20,000 but under \$30,000, ...	24	—	10	—
\$30,000 but under \$40,000, ...	14	—	4	—
\$40,000 but under \$50,000, ...	10	1	2	—
\$50,000 but under \$60,000, ...	7	—	2	—
\$60,000 but under \$70,000, ...	—	—	4	—
\$70,000 but under \$80,000, ...	3	—	—	1
\$80,000 but under \$90,000, ...	—	—	2	1
\$100,000 but under \$115,000, ...	2	—	1	—
\$115,000 but under \$125,000, ...	1	—	1	—
\$125,000 but under \$135,000, ...	—	—	1	—
\$155,000 but under \$165,000, ...	1	—	—	—
\$165,000 but under \$175,000, ...	1	—	—	—
\$200,000 but under \$250,000, ...	—	—	3	—
\$250,000 and over, ...	1	—	1	—
⌈ TOTALS, ...	1,845	521	398	47

Of the whole number paying a tax of \$1,000 or over, or 2,811, those paying a tax of less than \$5,000 numbered 2,289, or 81.43 per cent. The number paying a tax of \$5,000 or over was 522, or 18.57 per cent.

With an estimated population in 1906 of 606,216, the average tax levy for each man, woman, and child would have been \$34.12. We have seen that 2,811 persons, etc., paid \$14,100,447.54, or 68.17 per cent of the tax levy. This leaves \$6,583,180.87, or 31.83 per cent, to be paid by or on account of the remaining 603,405 persons, or an average to each individual of \$10.91.

As the figures stand, they indicate that 2,811 persons, etc., or forty-six one-hundredths of one per cent of the estimated total population of the city in 1906, or 606,216, paid 68.17 per cent, or more than two-thirds of the total tax levy.

In what manner the large taxpayer derives an income from the small taxpayer, or the non-taxpayer, which enables him to pay \$23.21 of the tax which would fall, as an average, on each of 603,405 individuals, is a question which will require a deep and thorough investigation.

DISTRIBUTIVE CO-OPERATION IN NEW ENGLAND.

In 1885, this Bureau published "A Manual of Distributive Co-operation," prepared in accordance with a Resolve of the Legislature which directed the Chief of the Bureau of Statistics of Labor "to prepare and publish for distribution a pamphlet descriptive of the history, methods, and present condition of co-operative distribution in Great Britain." That manual, consisting of about 100 pages, contained, in addition to the material pertaining to Great Britain called for by the resolve, other data relating to co-operative productive societies in Great Britain and to co-operative distribution in France, Germany, Austria, Denmark, Hungary, Italy, Sweden, Switzerland, The Netherlands, and Australia, and several pages relative to the Arlington Co-operative Association at Lawrence, Mass. Except for this statement about the Arlington Association only a few general remarks were made regarding co-operation of any sort in the United States. These general remarks were as follows:

"Distributive co-operation in the United States has been tried upon various plans, notably under the patronage of the Sovereigns of Industry, Patrons of Husbandry, Knights of Labor, and similar organizations. Being in most instances incidental only to the main purpose of such orders, the fate of these distributive stores has usually been determined by the success or failure of the primary objects of the organization."

The call for the present investigation of the subject of distributive co-operation comes at this time not from the Legislature but from private sources. The material herewith presented has been obtained largely through correspondence, from magazine articles on one or another phase of the subject, and from various official reports.

The study naturally leads us back to the official report by Edward W. Bemis, Ph.D., on "Co-operative Distribution," which forms a part of Bulletin No. 6 of the Washington Department of Labor issued in September, 1896. We submit below such material from that report as relates particularly to New England.

CO-OPERATIVE DISTRIBUTION IN NEW ENGLAND IN 1896.

In speaking of the history of the co-operative movement in the United States, Dr. Bemis said:

"That form of co-operative distribution or consumers' societies, known as the co-operative store, had its American beginnings with the so-called union stores in New England from 1847 to 1859. Limiting dividends and selling a little above cost, these stores either failed or were transformed into private enterprises. None survive; yet 769 of these stores were started, and 350 of them, mostly in New England, reported in 1857 a capital of \$291,000 and an annual trade of \$2,000,000."

The Patrons of Husbandry, organized in 1866, also established co-operative stores in New England, but nearly all of these stores seem to have followed the methods of the union stores and to have met a similar fate. The Rochdale methods were adopted by a Philadelphia store in 1864 and in 1869 by the Danvers Co-operative Union Society of Danvers, Mass., which had followed the union methods since its organization in 1865. The success of the Rochdale methods caused "the third wave of co-operative enthusiasm which

swept over New England and a few other sections in the seventies and which was chiefly fostered at that time by the Sovereigns of Industry during its brief history from 1874 to 1880; but the Rochdale methods then popularized were at once taken up by a few grange stores. . . ."

From 1884 to 1888 the co-operative movement was given a new impetus by the Knights of Labor, who established not only distributive but also productive co-operative enterprises, most of which either failed or were transformed into joint stock companies. Of the status of the movement in 1896, Dr. Bemis said:

"While six of the stores that had a trade of \$134,000 in 1886 are now closed, the trade of the remaining 13 of those in existence in the former period has grown from \$479,900 to \$978,951.48, and nine new stores report a trade of \$251,409.49. The total co-operative trade in New England, almost entirely on the Rochdale plan, is thus over twice as great as ten years ago."

The total membership in 1896 of the 26 societies mentioned by Dr. Bemis was 10,692, as compared with the membership of co-operative societies elsewhere in the United States of 6,115. The trade of the 20 leading co-operative societies in New England amounted to \$1,174,000, or \$114.63 a member, and the average dividend on the trade of members in these 20 New England Rochdale stores, in 1895, was 6.8 per cent as compared with 3.5 per cent paid by 13 stores outside of New England. Thus the movement showed a more general prosperity in New England than elsewhere in the United States. This was no doubt a result of the more business-like methods of the New England societies which did not trust as much as those farther West. The Arlington Co-operative Society at Lawrence, Mass., and some other societies also had "the excellent habit of never allowing in their inventory of merchandise a greater valuation than the original cost, and putting a lower valuation upon it if the market price [had] fallen."

From the report of Dr. Bemis in 1896 the following table has been compiled, giving particulars with reference to 15 co-operative societies then doing business:

Rochdale Societies in New England, 1895-96.

NAMES AND LOCATION.	Number of Members	Capital Invested	Surplus	Sales	Total Expenses, including Interest	Dividends on Members' Trade (Per Cent)
In Massachusetts.						
Arlington Co-op. Assoc., Lawrence, . .	2,850	\$120,664.89	\$19,000.00	\$267,508.21	\$44,065.85	7.0
Beverly Co-op. Assoc., ...	188	8,000.00	1,971.00	63,580.82	7,028.42	5.0
Co-op. Store Co., Kingston, ...	123	1,850.00	1,447.00	9,517.92	1,064.87	5.5
German Co-op. Assoc., Lawrence, . .	169	1,690.00	1,000.00	36,037.00	2,225.40	7.0
Hampden County Co-op. Assoc., . .						
Springfield, ...	184	5,500.00	275.00	30,000.00	5,930.00	3.0
Harvard Co-op. Society, Cambridge, .	1,909	16,368.96	-	135,151.41	9,418.41	7.0
Knights of Labor, Co-op. Boot and						
Shoe Assoc., Worcester, ...	201	3,405.00	593.17	15,417.85	3,993.37	10.0
Lawrence Equitable Co-op. Society, .	732	4,121.59	435.09	23,707.00	3,737.42	7.0
Lowell Co-op. Assoc., ...	1,130	15,525.00	4,657.50	59,428.68	12,952.80	10.5
Riverside Co-op. Assoc., Maynard, . .	398	11,895.00	4,714.41	48,216.64	5,969.21	5.5
Other New England States.						
Farmers' and Mechanics' Exchange, .						
Brattleboro, Vt., ...	509	45,000.00	1,026.00	67,624.87	12,745.50	5.0
Lisbon Falls Co-op. Assoc., Lisbon						
Falls, Me., ...	275	8,155.00	2,210.32	53,867.19	4,906.91	9.0
Sabattus Co-op. Assoc., Sabattus, . .						
Me., ...	125	4,630.00	425.00	31,000.00	2,777.80	12.0
Sovereigns Trading Co., New Britain,						
Conn., ...	200	21,000.00	-	150,000.00	7,260.00	1-
Woodlawn Co-op. Assoc., Pawtucket,						
R. I., ...	174	2,068.06	344.11	17,919.65	3,199.92	2.8
TOTALS — 15 ASSOCIATIONS, ...	9,167	\$269,873.50	\$38,098.60	\$1,008,977.24	\$127,275.88	-

¹ Not stated.

Eleven other co-operative associations in New England were mentioned in Dr. Bemis's report, but the particulars were not complete, and for this reason they were not included in the above table. The number of members in each of these associations and the rate of dividends paid by six of the associations are given in the following table:

NAMES.	Location	Number of Members	Dividends on Members' Trade (Per Cent)
First Swedish Co-op. Store Co. of Quinsigamond, .	Worcester, Mass., .	262	10.0
Cambridge Co-op. Society, ...	Cambridge, Mass., .	185	7.5
Dorchester Co-op. Assoc., ...	Boston, Mass., .	20	1—
Haverhill Co-op. Society, ...	Haverhill, Mass., .	45	1—
Hub Co-op. Emporium, ...	Boston, Mass., .	80	1—
Industrial Co-op. Assoc., ...	New Bedford, Mass., .	410	3.0
Lynn Co-op. Society, ...	Lynn, Mass., .	60	1—
Plymouth Rock Co-op. Co., ...	Plymouth, Mass., .	82	6.0
Rockland Co-op. Society, ...	Rockland, Mass., .	60	1—
West Warren Co-op. Assoc., ...	West Warren, Mass., .	196	7.5
Lewiston Co-op. Society, ...	Lewiston, Me., .	125	5.0
TOTAL — 11 ASSOCIATIONS, ...		1,525	—

¹ Not stated.

The following statement made by Dr. Bemis in 1896 would, in a measure, hold true to-day and may be appropriately quoted in this connection.

"Lawrence, Mass., has a larger proportion of members of co-operative societies than any other American city. In three societies there — the Arlington, the Equitable, and the German Co-operative societies — there are 3,751 members, embracing about 19,000 persons, if each member is considered to represent a family of five persons. This is 36 per cent of the population of the city."

CO-OPERATION IN MASSACHUSETTS.

The status of the co-operative movement in Massachusetts cannot be accurately defined for various reasons, particularly for the reason that the movement is admittedly in a chaotic state without any general or official organization. The Co-operative Union of America, with headquarters at Cambridge, Mass., dwindled down to a few members not long after its organization in 1896, and its official organ "The American Co-operative News" ceased to appear after issuing a few numbers. The former secretary of the Union, Mr. James Rhodes, who now resides at Lawrence, Mass., has continued, gratuitously, to perform his former duties and so far as possible has kept in communication with the old societies and has assisted in forming new associations wherever opportunity has offered. In presenting the material relating to co-operative societies in Massachusetts we wish to acknowledge the valued service rendered by Mr. Rhodes in furnishing us with a list of associations and such facts regarding them as he had at hand.

Under the provisions of the "Business Corporation Law," passed in 1903,¹ every corporation, including co-operative associations, is required to make to the Secretary of the Commonwealth an annual report of its condition, stating, under assets, the value of its real estate, machinery, merchandise, cash and debts receivable, patent rights, trade marks, good will and profit and loss, and, under liabilities, the amount of capital stock, the accounts payable, funded indebtedness, floating indebtedness, surplus, profit and loss.

¹ See page 145.

Unfortunately for our purpose, no official returns are filed by the co-operative associations in Massachusetts showing the number of members, amount of sales, amount or rate of dividends paid, total expenses and other facts which we would desire to show in this article. All these facts must, therefore, be obtained directly from each association.

At some time during the years 1895 to 1906, so far as could be determined by an exhaustive search, there were 74 different distributive co-operative associations in operation in Massachusetts. Of these it was fairly probable that some were simply stock companies, trading under the name of "co-operation." In several cases associations which at first were strictly co-operative in purpose have since changed over into stock companies while retaining the earlier name. During the period under consideration 19 associations are definitely known to have been dissolved, of which five were reported as having dissolved in 1903, two in 1904, and two in 1905. The life of the associations dissolved was short in most instances, three associations having dissolved in the same year in which they were organized, seven within one year of organization, one within two years, one within three years, and three within four years.

Of these short-lived societies we shall not speak specifically. But two societies dissolved during this period were in operation for a longer term. One of these, the West Warren Co-operative Association, organized in 1889, was dissolved in 1898 while in good standing and while having a membership of 202 members. The invested capital was \$4,000, and during its last fiscal year the total sales amounted to \$36,000. The dividends distributed amounted to about \$600 and the average rate of dividends paid to members since the society was organized was eight per cent. The former treasurer of the association in a recent communication states that "by disposing of the building valued at \$1,000 the full amount (\$850) still due the members could be paid." No statement was given as to the reason for dissolving the association, but presumably it was due to lack of interest on the part of the members. The other society, the Danvers Co-operative Union, was organized in 1865 and was dissolved in 1896. With respect to this society, we quote the following statement: "The oldest co-operative store in this country, at the time of its failure in 1896, was the Danvers Co-operative Union Society, with a capital of \$5,500 in the shoe manufacturing town of Danvers, Mass. At first, however, from 1865 to 1869, it sold goods exclusively to its members and at cost. . . . It did not adopt the Rochdale plan until 1869. The failure is ascribed to incompetent agents, and was so disastrous as to leave the stockholders only 25 per cent of their investment."¹

Some 15 or more associations which were known to have been in existence since 1895 have been lost track of and probably have also been dissolved, since their names either do not appear in the directories of the city or town in which they were respectively located, or letters mailed to the address given have been returned to us marked by the postmaster "unclaimed," "out of business," or "address unknown."

Eliminating from the list such associations as are definitely known to have been dissolved or presumably have gone out of existence, we find that the list narrows down to 33 associations. For these associations we present the following data compiled from the "Abstract of the Certificates of Corporations organized under the General Laws of Massachusetts," prepared by the Secretary of the Commonwealth. The returns are for the fiscal years (ending

¹ "Co-operative Distribution," Bulletin of the Department of Labor, 1896, p. 613.

in 1905) of the several corporations listed, and show the condition of those corporations at the close of the fiscal year. Some corporations which do business under the name of co-operation are in effect simply stock companies. So far as possible in the light of definite information obtainable, only retail distributive associations which are co-operative in purpose as well as in name are included in the following table:

Condition of Distributive Co-operative Associations in Operation in Massachusetts in 1905.

NAMES AND LOCATION.	Authorized Capital Stock	ASSETS			LIABILITIES			
		Tangible Assets	Cash and Debts Receivable	Profit and Loss	Capital Stock	Accounts Payable and Other Indebtedness	Surplus and Sinking Funds	Profit and Loss
Adams Co-op. Assoc., ...	\$2,500	\$4,208	\$566	-	\$1,880	\$1,665	-	\$1,229
Arlington Co-op. Assoc., Lawrence, .	500,000	162,660	38,196	\$25,901	169,780	56,977	-	-
Beverly Co-op. Assoc., ...	6,400	5,375	4,170	-	6,400	1,096	\$1,685	364
Brockton Co-op. Assoc., ...	15,000	10,056	1,448	-	7,446	3,265	793	-
Co-op. Market Co., Boston, ¹	40,000	-	-	-	-	-	-	-
Charlemont Co-op. Assoc., ...	5,000	4,142	5,339	2,372	1,740	10,113	-	-
Co-op. Store Co., Kingston, ...	2,000	2,090	967	-	1,825	472	646	114
Danvers Co-op. Assoc., ...	2,500	2,057	1,974	-	2,500	286	750	495
Easthampton Co-op. Assoc., ¹	10,000	-	-	-	-	-	-	-
Fall River Workingmen's Co-op. Assoc., .	25,000	13,259	1,246	-	12,060	2,421	-	24
Family Grocery Co., Worcester, . . .	3,000	4,052	5,116	-	3,000	5,885	-	283
First Swedish Co-op. Store Co., Quinsigamond, Worcester, ...	4,500	11,930	6,139	-	4,500	8,859	3,758	952
Gardner Co-op. Assoc., ...	3,600	20,216	7,193	-	3,600	1,950	21,859	-
Gardner Finnish Co-op. Co., ...	1,600	2,750	2,590	-	1,520	3,117	526	177
German and Bohemian Co-op. Assoc., New Bedford, ...	1,600	3,468	3,151	-	1,600	3,580	-	1,439
German Co-op. Assoc., Lawrence, . .	3,000	11,687	4,638	-	3,000	4,573	5,179	3,573
German Co-op. Grocery Co., Fitchburg, ...	2,000	6,711	3,651	-	1,980	6,344	2,038	-
Harvard Co-op. Society, Cambridge, .	50,000	117,099	21,963	-	50,000	77,774	2,063	9,225
Lowell Co-op. Assoc., Sovereigns of Industry, ...	25,000	45,805	29,226	-	17,135	14,216	33,124	10,556
Morgan Memorial Co-op. Industries and Stores, Inc., Boston, ¹	100,000	-	-	-	-	-	-	-
North Adams Co-op. Assoc., ...	20,000	22,308	2,058	-	8,680	11,253	1,943	2,490
Norwood Co-op. Assoc., ...	10,000	3,276	1,497	-	2,345	1,532	-	596
People's Co-op. Store, Orange, ...	4,000	4,394	4,385	-	4,000	2,929	402	1,448
Pigeon Cove Co-op. Assoc., Rockport, ...	3,000	2,669	723	187	3,000	579	-	-
Pittsfield Co-op. Store, ...	5,000	3,386	254	-	3,335	-	123	182
Pittsfield Co-op. Coal Co., ¹	10,000	-	-	-	-	-	-	-
Riverside Co-op. Assoc., Maynard, . .	15,000	20,986	3,221	-	12,350	4,946	3,880	3,031
Scandia Co-op. Grocery Co., Fitchburg, ...	5,000	3,225	3,371	-	2,635	2,192	1,769	-
Scandinavian Co-op. Grocery Union, Worcester, ...	4,000	4,216	7,470	-	4,000	4,125	-	3,561
Sovereigns Co-op. Assoc., Webster, .	5,000	2,782	4,115	-	1,910	3,873	-	1,114
Swedish Mercantile Co-op. Co., Worcester, ...	21,100	59,461	6,842	3,254	21,100	48,457	-	-
Turva Co-op. Store, Quincy, ¹	1,000	-	-	-	-	-	-	-
Waltham Co-op. Furniture Co., ¹ . . .	20,000	-	-	-	-	-	-	-

¹ Organized in 1905; a full statement of condition does not, therefore, appear in the Abstract for 1905

The above table does not include co-operative creameries which are both productive and distributive in their functions. In 1896, 28 out of 50 creameries in Massachusetts were strictly co-operative.¹ The "Abstract of the Certificates of Corporations for 1905," above referred to, includes particulars regarding 22 such co-operative creamery associations.

In the following table are presented certain facts pertaining particularly to the co-operative nature of 23 associations now actually in operation from which replies have been received to our communications. Following the table will be given a detailed statement regarding each of these associations.²

¹ Prof. Frank Parsons, in the *Arena*, August, 1906.

² The text includes a statement regarding the Brockton Co-operative Association, but as the returns were for the last quarterly period instead of for the last fiscal year they are not included in the table.

Massachusetts Associations Engaged in Co-operative Distribution, from which Reports, for the Fiscal Year Ending in 1906, have been received.

NAMES AND LOCATION.	Date of Establishment	Number of Members	Capital Invested	Total Sales during Fiscal Year	Average Dividend paid since Organization
Adams Co-op. Assoc., ...	1904	206	\$1,800	\$15,038	5 0
Arlington Co-op. Assoc., Lawrence, ¹	1884	3,609	173,663	221,383	7 0
Beverly Co-op. Assoc., ...	1879	167	6,400	49,022	² 10 0
Co-op. Store Co., Kingston, ...	1875	17	1,835	6,000	6 0
Danvers Co-op. Assoc., ...	1871	50	2,500	37,116	3 -
Easthampton Co-op. Store, ...	1903	173	2,820	16,652	6 3
Fall River Workmen's Co-op. Assoc., ...	1867	79	11,855	3 -	5 0
Gardner Co-op. Assoc., ...	1868	59	3,600	3 -	5 0
German Co-op. Assoc., Lawrence, ...	1890	342	3,420	64,317	8 0
German Co-op. Grocery Co., Fitchburg, ...	1897	140	2,000	33,154	9 0
Harvard Co-op. Society, Cambridge, ...	1882	2,162	50,000	249,251	6 8
Lowell Co-op. Assoc., Sovereigns of Industry, ...	1876	2,006	16,635	210,657	9 0
Mass. Co-op. Assoc., So. Quincy, ¹	1902	163	4,531	56,574	3 -
Mass. Inst. of Tech. Co-op. Assoc., Boston, ...	1886	454	-	4,678	-
Morgan Memorial Co-op. Industries and Store, Inc., Boston, ...	1905	56	8,682	12,374	-
North Adams Co-op. Assoc., ...	1897	446	11,959	62,128	3 5
People's Co-op. Store, Orange, ...	1902	24	4,000	47,285	5 3
Pigeon Cove Co-op. Assoc., ...	1894	99	3,000	3,639	3 -
Pittsfield Co-op. Coal Co., ...	1905	260	3,000	47,479	5 0
Pittsfield Co-op. Store, ...	1902	350	3,300	33,826	5 0
Riverside Co-op. Assoc., ...	1878	500	14,750	75,000	7 0
Scandia Co-op. Grocery Co., Fitchburg, ...	1894	42	2,500	22,100	8 0
Swedish Mercantile Co-op. Co., Worcester, ...	1884	9	58,710	44,254	3 -

¹ Reorganized in November, 1906, as the New Arlington Co-operative Association.

² For the ten years, 1897-1906.

³ Not stated.

⁴ Incorporated under the laws of Maine.

The Adams Co-operative Association.

This association was established in July, 1904, primarily for the purpose of furnishing coal and wood at lower prices than those charged by other agencies. The treasurer in a communication states that since the organization of the association coal in Adams has never retailed above \$6.75 per ton and has been sold as low as \$6. The price in January, 1907, was \$6.50, while prices in Pittsfield and North Adams were as high as \$7 and \$7.25 a ton, although the freight rate in those cities was 20 cents less a ton than in Adams. The report for the year ending July 1, 1906, shows encouraging results. The membership was 206, and there were four employees not including any of the officers. The capital invested amounted to \$1,800, which was represented by 360 shares valued at \$5 each. Each shareholder has credit on the books on which interest at five per cent has been granted since the organization of the association. The total interest on the capital and borrowed funds during the last fiscal year was \$113.34. The association owns real estate (valued at \$1,587 in 1905), \$450 being still due on account of the land. The total sales during the last fiscal year amounted to \$15,038.18.

The Arlington Co-operative Association — Lawrence.

In the Manual of Distributive Co-operation published by this Bureau in 1885 and before alluded to, several pages were devoted to a description of the Arlington Co-operative Association which had been organized during the previous year, 1884. The association was reorganized November 12, 1906, as the New Arlington Co-operative Association. The old association as at first organized was limited to employees of the Arlington Mills, and members were allowed to hold from one to two hundred shares, the par value of each share having been \$5. The average capital for the first year was \$3,320, and the total sales for 54 weeks were \$38,194.94 on which the net profits were

\$2,273.06. Of the net profits \$1,949.98 was distributed among the members, representing an average profit on sales checks returned by members of 6.24 per cent for full dividends. In addition to the dividends distributed, \$323.08 was carried to the sinking fund. At the close of the first year's business the capital stock issued was \$3,320 (664 shares); the merchandise in stock amounted to \$2,554.27; fixtures, \$767.28; and the cash in bank, \$1,249.26. The association by this prosperous showing gave hopeful promise for the future.

In 1896, according to the report by Dr. Bemis in the Bulletin of the United States Department of Labor above referred to, this association showed unusual growth. It then had an invested capital of \$120,664.89, and a surplus of \$19,000, and during the year 1895-96 its total sales amounted to \$267,508.21, while the dividends paid on the trade of members amounted to seven per cent, and at the same time interest on the share capital was paid at the rate of five per cent. The association also secured for its members a ten per cent discount on an outside trade of \$67,541, a much larger discount than the average rate secured by other associations at that time.

The report which has been received for the fiscal year ending March 3, 1906 (prior to the reorganization of the association in November, 1906), was not altogether so encouraging. The membership at the close of the year was 3,609 persons who held shares in capital stock amounting in value to \$130,580.23; the total capital invested was \$173,663.21, and the total indebtedness was \$169,580.23 against which a reserve or sinking fund of \$226.30 was held. The surplus distributed at the close of the last fiscal year amounted to \$2,449.48. The total sales during the year amounted to \$221,382.94, and, on these sales, dividends to the amount of \$10,783.53 were declared. The average rate of dividends paid on members' trade since the association was organized (in 1885) was about seven per cent.

As the result of a deficit caused by fraudulent management, the Arlington Association was recently placed in the hands of an assignee. On November 12, 1906, the old association was succeeded by the New Arlington Association which has taken over the business from the assignee. The by-laws of the new association provide for the holding of quarterly and annual meetings, at which 15 members shall constitute a quorum. Each stockholder may hold from one to 200 shares of stock (par value \$5) but is entitled to only one vote and may not vote by proxy. Any person desiring to trade with the association, on payment of an initiation fee of fifty cents, and one dollar toward purchase of at least one share of stock, may, on approval of the Directors, become a member of the association. He shall then be entitled to full dividends on his purchases, but may not be entitled to vote at any meeting or to receive dividends on his stock until one full share shall have been fully paid for by him. The by-laws further provide for the setting aside of 10 per cent of the net annual profits as a sinking fund until such fund shall have amounted to 30 per cent of the capital stock. From the remainder of the net profits, dividends on stock at the rate of six per cent per annum are to be paid and the balance as dividends on purchases made, non-members to be paid such dividends at one-half the rate received by members.

The Beverly Co-operative Association.

This association was established in 1879 and has since shown continuous success. In 1896, it was reported by Dr. Bemis as having a membership of 188, a total capital of \$8,000, and a surplus of \$1,971; its sales during the year

1895-96 amounted to \$63,580.82, and a dividend of five per cent was paid on its members' trade, and interest at six per cent was paid on the capital stock.

Reports for 1905 and 1906 which have been received are very similar, the one for 1906 showing a somewhat larger trade than that for 1905. At the close of the fiscal year ending in 1906, there were 167 members and five employees. The capital invested amounted to \$6,400 and there was a reserve or sinking fund of \$2,509.92. The indebtedness amounted to only \$532.19. The total sales during the year amounted to \$49,022, and dividends of \$640 (or at the rate of 10 per cent on capital invested) were distributed among the members. The treasurer reports that dividends have been paid from earnings during the past 10 years at an average rate of 10 per cent a year.

The Brockton Co-operative Association.

The Forty-third Quarterly Report of this association shows it to be in a flourishing condition. From September 30 to December 31, 1906, the total sales amounted to \$7,309.61, of which \$7,007 was to members and \$302.61 to non-members. A quarterly balance of \$435.92, representing profits and other items, was available for distribution as follows: Interest on paid up shares, \$78; dividend of five per cent on members' purchases, \$350.35; dividend of two and one-half per cent on non-members' purchases, \$7.57. Interest at the rate of five per cent per annum on the capital stock is payable quarterly.

On December 31, 1906, the total assets of the association were \$13,444.75, divided as follows: Stock in trade, \$3,882.40; fixtures and rolling stock, \$2,320.12; land and buildings, \$5,752.24; bills receivable, \$1,198.31; and cash on hand and in bank, \$291.68. The liabilities were: Members' claims, including capital stock, \$7,422.82; sinking fund, \$3,194.62; mortgage, \$854; bills payable, \$1,523.55; quarterly profits, \$285.21; balance from dividend and interest account, \$77.02, and educational fund, \$87.52.

The Co-operative Store Co. — Silver Lake (Kingston), Mass.

In his report in 1896, Dr. Bemis said: "The longest successful American trial of the Rochdale plan seems to have been by the Co-operative Store Company at Silver Lake, in the town of Kingston, Mass., which began June 14, 1875. A small store in a small place of nearly stationary population and with a trade of only \$9,517.92 and a capital of \$1,850 in 1895-96, or nearly the same as in 1886, its continued success under one manager seems to prove the presence there of what has been found more important than even the Rochdale methods — a co-operative spirit. . . ." In 1896, there were 123 members and but one employee. A dividend of 5.5 per cent was paid on the trade of the members, and interest at six per cent was paid on the capital invested. At the close of the fiscal year ending October 1, 1906, there were only 17 members. The capital invested amounted to \$1,835, all of which represented shares of stock. The indebtedness was \$400, and there was a reserve or sinking fund of \$418.12. During the fiscal year the total sales amounted to \$6,000. Dividends amounting to \$36.60, or nearly two per cent on the invested capital, were paid. The average rate of dividend paid to members since the company was organized was six per cent.

The Danvers Co-operative Association.

In 1871, this association was organized. At the close of its fiscal year ending January 7, 1907, the report was as follows: Membership, 50; invested capital, \$2,500 (fully represented by shares of stock); indebtedness, \$263.20;

reserve fund, \$750; undistributed surplus, \$629.73. The total sales during the fiscal year amounted to \$37,116.46 and the amount of dividends distributed was \$1,227.32.

The Easthampton Co-operative Association.

This association was organized in March, 1903, and at the close of its fiscal year ending December 29, 1906, there were 173 members and two employees. The capital invested amounted to \$2,820, all of which was represented by shares of stock issued to members. The total liabilities were \$2,834.74, while there was a reserve fund of \$100.52 and an undistributed surplus of \$753.82. The total sales during the last fiscal year amounted to \$16,652.03. A semi-annual dividend of seven per cent was distributed in January, 1906, and another of four per cent in July of the same year. The average rate of dividends paid to members on the amount of their purchases since the association was organized was 6.3 per cent. A fixed rate of interest (five per cent per annum) is paid on all fully paid shares of stock held by members. Two shoe and men's furnishing stores, one drug store, and one hardware store in Easthampton give checks with all purchases made by members of the association and redeem these checks by paying the association 10 per cent of the value of purchases represented. The association pays whatever dividend is declared in redeeming the checks from the members.

The Fall River Workingmen's Co-operative Association.

This association was established in 1867 and since its organization has paid an average dividend of five per cent. At the close of its fiscal year ending December 31, 1906, there were 79 members. The authorized capital was \$25,000 and the total capital invested was \$11,855. During the last fiscal year dividends of \$117.40, or at the rate of about one per cent on capital invested, were distributed. The grocery and meat business has been discontinued, and the property has been sublet, although the association has not as yet been formally dissolved. There were no sales during the past year, the only income being derived from the rents received from the property. The total value of the shares of stock held by members on December 31, 1906, was \$12,000.

The Gardner Co-operative Association.

As early as 1868 this association was organized. At the close of its fiscal year on May 1, 1906, there were 59 members, the capital invested was \$3,600, the total indebtedness was \$5,287.73, there was an undistributed surplus of \$5,531.20, and \$1,211.93 was held as a reserve fund. The sum of \$360 was distributed as dividends during the year. Since the organization of the association the average rate of dividend paid to members, in addition to the regular six per cent rate of interest on capital stock, was about five per cent.

The German Co-operative Association — Lawrence.

This association, organized in 1890, had a membership in 1896 of 169 persons, and there were three employees. The capital invested was \$1,690, and there was a surplus of \$1,000. The sales during the fiscal year 1895-96 amounted to \$36,037, and dividends of seven per cent were paid on members' trade, while interest at six per cent was paid on the capital stock.

On January 1, 1907, there were 342 members and six employees. The capital stock issued amounted to \$3,420, representing one share for each mem-

ber, the par value of the share being \$10, while the market value was given as \$36.50. The reserve or sinking funds available amounted to \$1,200, and there was an undistributed surplus of \$1,898.10. The total sales during the year 1906 amounted to \$64,317.06. Dividends at the rate of 12 per cent were paid on the trade of the members, and interest on capital was paid at the rate of five per cent. The average rate of dividends paid to members since the society was organized was eight per cent. The report of the association for the six months from July 1, 1906, to December 31, 1906 (printed in German), is very explicit and shows the association to be in a very prosperous condition, the assets being \$21,518.69 and the corresponding liabilities \$12,430.37.

The German Co-operative Grocery Co. — Fitchburg.

This association was organized in July, 1897, and at the close of its fiscal year, December 31, 1906, its membership numbered about 140 persons who held shares of capital stock valued at \$2,000. Its total liabilities amounted to \$10,836.94 against which there were sinking funds of \$793.21, an undistributed surplus of \$2,400, and nearly \$7,000 in merchandise and other tangible assets. The total sales during the year 1906 amounted to \$33,154.46, and dividends of seven per cent were paid on all purchases made both by members and non-members, while a dividend of 15 per cent on shares was distributed. The average rate of dividend paid to members since the society was organized was nine per cent.

The Harvard Co-operative Society — Cambridge.

The Harvard Co-operative Society, which was organized in 1882 and incorporated in 1903, is, as a result of its identification with the interests of the student body at Harvard University, perhaps the most widely known co-operative institution in Massachusetts. The constantly shifting membership of the society has rendered advisable the establishment of a two-fold organization, consisting of an "incorporated society" of five stockholders who hold the stock in trust for the members of the "unincorporated society." Any officer or student or past member of Harvard University, Radcliffe College, or the Episcopal Theological School, and such other persons or corporations as the Directors shall vote, may become a member of the "unincorporated society." To such members "participating tickets" are issued annually on payment of a fee of \$1, and at the close of each fiscal year dividends are distributed among such ticket holders *pro rata* upon their purchases.

The by-laws of the society provide for the nomination by the stockholders of a president, treasurer, clerk or secretary from the University at large and eight other directors to be selected as follows: One each from the Faculty of Arts and Sciences, the Graduate School, the Law School, the Medical School, the University at large, the Senior, the Junior, and the Sophomore classes of the college and of the Scientific School, respectively. Other nominations may be made on nomination papers signed by 25 participating members. If no additional nominations are made, or if fewer than 100 members are present and voting at the annual meeting of the ticket holders, the nominees of the stockholders shall be elected by the stockholders. No stockholder may be nominated for any office in the society.

In 1896, the membership of the society was 1,909, the total capital invested was \$16,368.96, the total sales for the fiscal year ending in 1896 amounted to \$135,151.41, and dividends of seven per cent were paid on members' trade.

The report for the fiscal year ending July 31, 1906, showed a member-

ship (in the unincorporated society) of 2,162 and 43 employees. The capital stock of the corporation was \$50,000, the total indebtedness was \$75,900.24, and there was a surplus of \$2,723.10. These liabilities of the corporation were fully offset by assets, of which the larger part consisted of tangible property. During the year the total sales amounted to \$249,251.44, and the amount of dividends distributed from profits was \$10,740.99. Since the incorporation of the society, in 1903, the average rate of dividends paid to members on the dividend-bearing purchases was six and three-quarters per cent. A number of retail dealers in Cambridge and Boston allow discounts on cash purchases made by members of the society.

The Lowell Co-operative Association, Sovereigns of Industry.

Among the co-operative associations established by the Sovereigns of Industry during the brief history of that fostering organization from 1874 to 1880 was the association at Lowell which was organized in 1876. This association has been in operation for a period of 30 years, and during the last 20 years of that period has paid dividends on members' trade averaging nine per cent a year.

In 1896, the membership numbered 1,130 persons on whose trade a dividend of 10.5 per cent was paid. The capital invested amounted to \$15,525 and the available surplus to \$4,657.50. During the year the total sales amounted to \$59,428.68.

At the close of the calendar year 1906 the membership was 2,006, and there were 26 employees. The capital invested was \$16,635, represented by 3,327 shares at \$5 a share; there was no indebtedness, and the reserve or sinking funds available amounted to \$38,154.10. Dividends amounting to \$21,841.49 were declared during the year, of which amount \$1,980.41 was carried to the sinking fund and \$19,861.08 was payable to members as dividends on their trade, being apportioned at rates varying from eight to five and one-quarter per cent on the several lines of goods sold. The total sales during the year amounted to \$210,057.66. Eleven local stores pay the association discounts of seven per cent on goods sold to members of the association. Sales checks, which are received by the stockholders of the association with their purchases at these several stores, are redeemed by the association at the rate of seven per cent on the total amount of purchases represented. Members' trade during the last six months of 1906 at one large clothing store amounted to \$10,937.27, and at a boot and shoe store to \$2,090.43. In addition to full dividends on purchases, stockholders receive four per cent interest on their capital stock, the par value of each share being \$5.

The Massachusetts Co-operative Association — South Quincy.

This association was incorporated in 1902 under the laws of Maine by the Co-Workers Fraternity of America — a Massachusetts corporation — the object being to establish co-operative stores wherever feasible. The first store at Atlantic, Mass., failed as a result of poor management. This association at South Quincy was then opened, and in spite of difficulties at first encountered it has steadily gained in business until now it is reported to be one of the best of the grocery stores in Quincy.

Its statement of condition on August 31, 1906, showed cash on hand of \$377.54; merchandise, \$2,102.45; accounts receivable, \$3,356.83; furniture and fixtures, \$2,429. The liabilities were: Capital stock, \$1,345.58; accounts payable, \$4,488.38; and surplus, \$2,431.86. In 1903 and 1904 dividends of two per cent on purchases were paid to members, and in 1905 and 1906 no dividends

were paid, all profits being applied to extending and equipping the store. The total sales during the year ending August 31, 1906, amounted to \$56,573.78.

The Massachusetts Institute of Technology Co-operative Society — Boston.

This society, established in 1886, has no invested capital, but sells supplies on commission at special rates to members. As it does not conform strictly to the Rochdale type of co-operative association, it has not been included in the various printed reports treating of such associations, but it seems proper to present here a brief statement regarding it. At the close of the fiscal year ending April 1, 1906, there were 454 members. The total sales during the last fiscal year amounted to \$4,678.07. The directors give their service as needed without remuneration. The society not only sells supplies to its members at special rates, but also furnishes them with a list of stores which allow discounts of from six to twenty per cent on purchases made by the members. All profits on the sales made by the society are credited to the Co-operative Scholarship Fund to aid deserving students at the Institute. During the last fiscal year \$950 was thus appropriated, and since the organization of the association the total amount of \$10,662.50 has been set aside for scholarships. A balance of \$933.68 is now held in the treasury of the society.

Morgan Memorial Co-operative Industries and Stores, Inc. — Boston.

As stated by the treasurer, this institution is a charitable organization, and its work involves other features than that of co-operative distribution. At the close of the fiscal year 1906, there were 56 members and 14 regular employees. The capital invested was \$8,681.58, of which \$2,730 was represented by shares of stock (par value \$10). Interest on the shares of stock was paid at the rate of five per cent. No profits were paid to members. Employment was given to 1,169 persons, the total payment for work being \$1,874.55. The total sales during the year amounted to \$12,373.94, including material produced by labor employed. A portion of the income of the institution is contributed, and for that reason no statement can represent in any sense the financial success of the co-operative feature.

The North Adams Co-operative Association.

This association was organized in 1897 "to carry on the trade of general dealers in household supplies on the co-operative plan." At the close of the fiscal year ending December 1, 1906, the membership was 476 and there were 15 employees. The capital invested amounted to \$11,958.54, and goods to the value of \$62,128.03 were sold during the year. No dividends on stock or purchases were paid in 1906 on account of a loss of \$3,000 in the coal department. The treasurer states, however, that the general business is increasing, and that the future of the association looks very bright. The average rate of dividends paid to members since the society was organized was about 3.5 per cent. Several local merchants allow a discount of 10 per cent on all purchases made by members of the association.

The People's Co-operative Store — Orange.

The association which controls this store was organized January 14, 1902. At the close of the fiscal year ending February 1, 1906, there were 24 members and six employees. The capital invested was reported as \$4,000, while the total value of shares issued amounted to \$4,200. The total indebtedness was \$2,327.40, and the undistributed surplus amounted to \$2,786.15. During the fiscal year the sales amounted to \$47,284.90. Dividends of \$280, or at the

rate of 6.7 per cent on the shares of stock issued, were distributed among the members. Since the organization of the store an average rate of 5.25 per cent has been paid as dividends.

The Pigeon Cove Co-operative Association — Rockport.

Incomplete returns were received from this association. It was organized in 1894, and from the records it appears that dividends of six per cent were paid to members in 1894, 1896, 1897, and 1898, and of five per cent in 1899, 1900, and 1901. No dividends were declared in 1895 or since 1901. At the close of the fiscal year ending December 31, 1906, the membership was 99 and the total capital invested was \$3,000, which was represented by shares, the par value of which was \$10. The total sales during the last fiscal year amounted to \$3,638.85.

The Pittsfield Co-operative Coal Company.

In July, 1905, this company was organized to furnish coal and wood at less than the then prevailing market price. The report for its first year ending July 11, 1906, showed the business to be firmly established. The membership was 260, and an average of 12 persons had been employed during the year. The amount of capital stock was \$3,000, which was represented by shares of stock held by members. Interest amounting to \$137.86 was paid on this stock during the year, \$617.33 was set aside as a sinking fund, an undistributed surplus of \$1,399.80 was held in the treasury, \$90.86 was charged off as depreciation of fixtures, \$257.50 was paid to members and \$158.16 to non-members as dividends on purchases. The assets consisted of: Merchandise (inventory), \$2,400.78; furniture and fixtures, \$1,817.13; and cash on hand, \$1,443.63.

In addition to placing the business on a sound basis, showing sales during the first year of \$46,574.32, the company furnished coal and wood to both members and non-members at prices below the prevailing market prices in Pittsfield.

The Pittsfield Co-operative Store.

In 1902, this store was organized for the purpose of dealing in household supplies on the co-operative plan. At the close of its fiscal year ending January 31, 1906, there were 350 members and seven employees. The capital invested amounted to \$3,300, which was represented by shares of stock, the par value of which was \$5. The total sales during the year amounted to \$33,826, and dividends amounting to \$950 were distributed. The average rate of dividends paid to members since the society was organized was five per cent. A shoe firm allows five per cent discount on all purchases made by members of the society.

The Riverside Co-operative Association — Maynard.

This association was organized in November, 1878. In 1896, it had a membership of 398, an invested capital of \$11,895, and a surplus of \$4,714.41. The sales during the year amounted to \$48,216.64, while a dividend of 5.5 per cent on members' trade was declared. At the close of the fiscal year ending December 31, 1906, the membership had increased to about 500, and there were 10 employees. The capital invested amounted to \$14,750, and there was a reserve fund of \$4,800. The sales during the year amounted to \$75,000 and dividends of \$6,300 were declared. The average rate of dividends paid on purchases made by members since the association was organized was seven per cent, while the dividends paid during the last term were at the rate of 10 per cent, the largest ever paid by the association.

The Scandia Co-operative Grocery Co.—Fitchburg.

This co-operative company, organized in 1894, reported at the close of its fiscal year, ending December 31, 1907, a membership of 42, an invested capital of \$2,500 (represented by shares of stock, par value \$5), and a sinking fund of \$1,000. The amount of dividends distributed during the year was \$144.80. The average rate of dividend paid to members since the company was organized was eight per cent.

The Swedish Mercantile Co-operative Co.—Worcester.

The report of this association for the year ending December 31, 1906, showed assets as follows: Real estate, \$49,170.91; house fixtures, \$1,957.71; store and office fixtures, \$1,205.42; horses and wagons, \$1,192.05; merchandise, \$5,184.10; accounts receivable from store and rents, \$5,918.83; redeemed shares, \$920; other assets, \$316.14; loss, \$6,128.53; total assets, \$71,993.69. The corresponding liabilities consisted of: Capital stock, \$21,100; notes and accounts payable, \$50,220.60; taxes, 1906, \$640.09; and unpaid dividends, \$33.

During the year 1906, merchandise to the value of \$44,253.53 was sold. The store account showed a net loss of \$1,589.73. Referring to this loss the auditor said that it was only "apparent," being due, presumably, to a change in the methods of accounting. It seemed reasonable to doubt the accuracy of certain statements for previous years when inventories of goods may have been made at advanced prices instead of cost. Also, experiment with branch store may have caused confusion. He believed that "Present correct methods and careful management should show better results," and that "more cash capital, enabling purchase of goods for spot cash, and lower interest on loans would be a great gain." He added further that "Present tremendous competition makes imperative constant scrutiny for any saving in current expenses large and small."

From rental of portions of building a net profit of \$539.50 was received, but it appears that a part of the cost in the care of the estate had been charged to store salaries, etc.

LAW RELATING TO CO-OPERATION IN MASSACHUSETTS.

Prior to 1903 the laws of the Commonwealth made it fairly easy to co-operate on the Rochdale plan, but "The Business Corporation Law" (Chapter 437, Acts of 1903) practically annulled all the co-operative provisions of the earlier laws and placed co-operative associations in the same class as joint stock companies. A single section of the "Business Corporation Law" (Section 93) relates to corporations of a purely co-operative nature and reads as follows:

Chapter 437, Acts of 1903.

"Section 93. A corporation which is organized for the purpose of operation in carrying on any business and of co-operative trade shall distribute its earnings or profits among its workmen, purchasers and stockholders at such times and in such manner as its by-laws shall prescribe, but as often at least as once in twelve months. No distribution shall be made unless at least ten per cent of the net profits have been appropriated for a contingent or sinking fund until an amount has accumulated equal to thirty per cent of its capital stock. No person shall hold shares in any such corporation to an amount exceeding one thousand dollars at their par value, nor shall a stockholder be entitled to more than one vote upon any subject."

INDUSTRIAL EDUCATION FOR SHOE WORKERS.

By A. D. DEAN.¹

Recently two shoe manufacturers were holding a reminiscent conversation. One said, "I don't see where we are going to obtain foremen and superintendents ten years from now." The other replied, "Neither do I, but then, you know, you and I will be out of it by that time." Both of these men had learned their trade at the cobbler's bench. They had, through shrewd business sense, developed an immense business and yet this development had excluded a vital element for continued success — self perpetuation. These men, as other captains of industry have done, will probably turn to technical schools to solve their problem.

It is my purpose to discuss whether it is possible to establish industrial schools which will meet certain urgent needs of the shoe industry. Nearly every one assumes that schools can be organized for benefiting every industry. Naturally they base this opinion on their knowledge of the existing schools which have done so much for the machine and building trades.

Naturally one has to draw from his own experience or the experience of others in any such discussion. One needs to look into the principles and methods which underly existing technical and industrial schools both from the standpoint of the promoters of such schools and those who attend for instruction. The most common type of school is that which has a course of study adapted to the needs of the machine trades, meaning such trades as machine shop practice, pattern making, moulding, forging, and drafting. The courses are closely interrelated in the best of these schools. The mechanical drawing is the language of the various shops, through which they are able to communicate with one another. The conception in lines and dimensions in the drafting room becomes a model in wood in the pattern shop, the rough casting in the foundry, and finally the finished product in the machine shop. In this way this kind of a school exemplifies the machine trades, for the finished product typifies the general plan of the school and the industry of its workers, each department bearing some relation to the whole school, each process bearing some relation to the whole product. The idea is evolved in the drawing room. The shop departments work in conjunction with each other on the raw material to reach a definite aim — the assembled product. This ideal plan of the machine trade industrial school is to be expected when the machine trades themselves are organized in a similar way. The manufacturers of engines, motors, and machinery in general have their own inventors, designers, and mechanical draftsmen. They make the wooden patterns, mould the iron castings, assemble and complete the product in the machine shop. Of course all these concerns manufacture under the principle of the "division of labor." There is, however, developing in the machine trade industry itself a principle of manufacture which for the want of a better term I will call the "division of the industry." By this I mean that, instead of a concern making all the parts which enter into its final product, it purchases certain finished portions of the

¹ Special Supervisor, Department of Industrial Education of the State Executive Committee of the Young Men's Christian Association of Massachusetts and Rhode Island.

finished product, as, for example, machinery screws, nuts, bolts, and other stock pieces. That this phase of industrial development will be more and more generally extended is undoubtedly an accepted fact. The principle of the "interchangeability of parts," which is being more generally adopted in manufacturing, will have a tendency to separate what was a technically unified manufacturing industry into separate manufacturing industries, each complete in itself, bearing a direct relationship to the whole but not allowing the worker of each concern the opportunity of seeing the whole product made from the start to the finish.

The effect of such division within the industry is of vital interest to the student of industrial education. It is confessedly a serious problem to agree upon the proper kind of trade teaching for industrial workers when the vast majority of them are doing "piece-work" on an automatic machine. Existing trade schools are not conducted on the principle that any attention should be paid to the "division of labor" principle, it being thought a wiser plan to have the students grasp the principles underlying all the related branches. It is readily seen that it is manifestly a more serious problem when the industry itself no longer performs all the operations, no longer works on all the materials and appliances which go into the finished product.

Let us examine into the shoe industry, meaning all the capital and labor involved directly or indirectly in the making of shoes. It is perhaps necessary to draw a brief picture of the industry of former times, the time when the making of patterns, lasts, shoe fixings, wax, threads, etc., was all a part of the same shoe factory, when the treatment of leather, the forming of the shoe through pattern making and last making were vital processes in each factory. At that time the designing of the last, the forming of the pattern, the studying of the prevailing styles formed the basis for the thought side of the shoe industry. It was here that the technique of the industry came into play. It was the language side of the work, analogous to the mechanical drawing and design of the machine trades. Pattern making and last making were the processes upon which depended the proper expression of the finished product.

All this has changed. The shoe industry, like other industries, has made marked progress. The cobbler's bench has been superseded by the factory, automatic machines have taken the place of hand methods, and the small concern has given way to the modern factory turning out 25,000 pairs of shoes a day. This development has brought about almost a complete differentiation of the whole shoe industry into component parts, each complete in itself, but it has through this "division of processes" given the shoe industry a character unique in the manufacturing world. For instance, the lasts are now made in a last factory; the patterns are cut out in a pattern shop; the leather is tanned and finished in a leather finishing factory; the eyelets, lacings, straps, thread, wax, glue, cork, felting, canvas, packing boxes, and cartons are products of separate capital and labor. Most of the machinery is designed, manufactured, and controlled by one company. These shoe machines are leased, set up, adjusted, and repaired by this same company. One need not draw more of a picture to make it clear that the shoe industry offers a grave problem to the advocates of industrial education who expect to establish schools which will touch closely all branches of the shoe industry when the industry itself is organized along lines different from any other industry which may already have schools which are meeting its needs.

Let us consider some of the difficulties in the way of establishing a special school to meet the needs of the shoe industry and its workers. To begin with there is no concrete example of any existing shoe school to follow in this coun-

try. In the next place there are no courses of instruction in any of the present industrial and technical schools which are adapted to shoe workers. It is readily seen that courses in wood work, iron work, mechanical and free hand drawing, mathematics and science have apparently no place in the school which is to benefit the shoe industry, using the term as it has been narrowed down nowadays to mean that special portion of the whole industry concerned with assembling the various parts of the shoe. In the machine trades or building trades a skilled mechanic is greatly benefited by knowledge of mathematics and mechanical drawing. This added training serves to give him a better hold on his industrial position, and this increased usefulness reflects on the industry. A young machinist who studies into the mechanical operations controlling the particular machine on which he works, learning the principles under which it works, endeavoring to improve its output by adjustment, perhaps inventing a mechanical movement which will increase the efficiency of that machine, is in a position where he can materially benefit himself and his employer. Necessarily much of the incentive to follow the same course is lacking on the part of the shoe operators, when the tender of a shoe machine is not even expected to adjust his machine, much less to suggest improvements to the company owning and controlling the machine — a company which is not his employer. The elimination of pattern making from the shoe industry proper serves to remove the incentive on the part of the shoe worker to learn mechanical drawing. The making of lasts outside of shoe shops does away with wood work and foundry work knowledge on the part of the worker. The originating of various styles of shoes by a few men leaves no opportunity for originality in each separate shoe shop. The preparation of ground cork, wax, threads, and shoe fixings in industries separate from the shoe industry proper eliminates special formulas which would individualize each shoe factory. In brief, individuality as far as the technique of the shoe shop is concerned is largely a thing of the past.

There is, however, a very marked individuality in each shop, but it is the individuality arising from the commercial side of the business rather than from the technical side. The technical skill and knowledge of the shoe machine concern is very commendable. The technical skill of the maker of lasts, patterns, and shoe fixings is likewise commendable. It is, however, to the business intelligence of the shoe man that one must turn if he is to fully appreciate what the principle of the "division of the industry" really signifies. The shoe business has arrived at the point where it is but the assembling of the parts of the shoe, the materials of which come from other factories, the machines on which the parts are assembled made by other concerns, the materials by means of which the parts are held together produced in different places. I know of no industry in which the intelligence and business capacity of the manufacturer has played a greater part, or where the consumer can purchase for a comparatively small sum of money a product which has involved in its making so many operations, so much inventive genius, so much executive industry, as when he buys a pair of shoes. The separation of the allied manufacturing shoe interests into various separate industries of which the assembling of shoe parts is one gives the shoe manufacturer an opportunity to devote his entire time to the study of one problem; the cost of producing shoes with a given cost of materials, rental of machinery, and labor. He is not obliged to spend his time contriving some new machine or new process of manufacture. He is concerned with one problem, the putting together of the parts of a shoe in a way which will make a shoe sell for less money and yet be of a little better grade than that of his competitor.

In recognizing the technical barrenness of the shoe industry it is proper to study the effect on the worker and the industry. The elimination of the necessity of the shoe worker reading working drawings and making mathematical calculations, the sameness of the process of manufacture, the manipulation of machinery almost human in its action, necessarily has its effect on the workman. One finds that he places almost no value on manual intelligence or judgment, has practically no use for any of those fine points of manual skill which are so evident in almost all other trades. Though the shoe worker has developed a certain skill, it is not the manual skill as exemplified by that of the cabinet maker, engraver, or the plumber. It lacks the variety of movements of these workers. It does not bring into play the corresponding amount of mental activity. Instead of being manual skill as one usually thinks of the term it is a sort of deftness of hand, the movements of which are at first controlled by a thinking brain and then after some practice become absolutely automatic. The worker becomes in very fact an automaton — a feeder of the machine; his hand is but the guiding cam to the needle, to the jaw action, or to the hammer movement.

No industry, however, is so completely in the hands of the principle of the "division of labor" but that something is needed to improve the efficiency of the workers. In the hundred or so operations involved in the making of a shoe there are a few mile posts which mark the parting of the ways between a good shoe and a bad shoe — a few operations which require manual intelligence as well as manual skill.

The promoter of special shoe schools must study the technical needs of the workers on these particular operations in order that such schools may meet them. One finds five important divisions in the making of a shoe as follows: pattern making, cutting, stitching, lasting, and shaping. Each of these divisions requires or ought to require a certain amount of manual intelligence. The pattern making requires that sort of mechanical drawing which comes under the head of the development of surfaces. It means an intimate acquaintance with the shape and construction of the human foot, standards of measurement, imperfections, the individual peculiarities of the consumers, the various styles and demands of the market. The best pattern maker is an artist at his trade. He should be accustomed to precision of measurement. He should make provision for the alteration in shape and dimensions of the material in which his designs are produced, and he should design footwear that is artistic in shape. Much depends upon the individual skill of the pattern maker.

The cutting requires a working knowledge of leather. This means the judging of a well grown skin by its shape, of its quality by the thorn scratches, of the process by which it has been tanned, and by all means the discovering of some scheme that will produce the closest method of cutting and yet perfectly match as regards substance. All this is a matter requiring great judgment, and upon the cutter depends much of the reputation of the manufacturer for perfect or imperfect shoes.

The stitcher must have the requisite skill to sew the parts that they may fit accurately together, to avoid causing creases in the lining, making allowance for the effect of different substances passing over each other such as patent leather passing around stiff lining. The stitcher should be interested in the various forms of stitches and the mechanical operations involved in the stitching motion, the methods of setting needles in upper stitching machinery, the relative twist, friction, and strain upon stitching material, possible and practical speeds of machine and capacity of production, which varies with upper stitching materials.

The laster ought to have a high order of skill accompanied by considerable intelligence in order that the shoe may retain its shape after the last has been removed. It is a commonly accepted notion that if the upper is drawn tightly over the last and tacked down to the insole the result will be a perfectly shaped shoe. This is not true, for the leather used in the upper of the shoe is of varying nature either in substance, elasticity, or stretch. There ought to be a variation in the power applied in pulling over the upper. The latter is cut out of a flat surface and this flat surface has to be strained into the shape of the curves of the last. To merely draw the upper over the last would not result in its being lasted down. It is necessary to take draft strains. These strains ought to be taken at points that draw the upper along the lowest curves of the last or the curves of depressions. If this straining is accurately done the result is that the shoe retains its shape after the last is withdrawn. From this it is seen that the more knowledge the laster has of leather, its elasticity and flexibility, which is primarily due to the method of treatment of the raw skin, the better the shoe will retain its shape.

On the skill of the shaper and finisher depends much of the style of the shoe, that is, as far as it appeals to the public. These workers ought to know about the relation between the prepared edge and the setting iron. Upon their dexterity depend the various styles of edges and the methods of securing lightness of appearance and solidity. These points cover in the main the skill and intelligence required of the shoe worker.

If we consider the manufacturer's point of view we find that present day conditions do not make for intelligent workmen. The workmen, being a part of the machines, are not receiving any training apart from the one operation which they are performing. They are receiving no instruction in the broad principles of the trade or the processes allied to the particular ones on which they are working. It is increasingly difficult to find men qualified to fill positions of foremen and superintendents. The present method of manufacture of shoes if carried to its logical conclusion will eliminate all possibilities of training men to become superintendents or even foremen. A young man who receives good wages under the piece-work system running one machine is not likely to leave that machine to operate another when he would get less money until he shall have become equally as skilled in operating his present machine. Young men with only an average intelligence and ambition already earning excellent wages for their years of experience and training are not likely to spend their leisure hours in studying the methods and processes existing in their own departments, much less in the shop as a whole. They begin work on the stroke of the hour and leave on the stroke of the hour. If they arrived before the time of commencing work or staid later they would have no opportunity of making a study of other operations.

While these five main divisions of the shoe industry cover in a broad way the operations necessary in the assembling of shoe parts they do not consider all the various processes and materials which go to make up the manufacture of shoes. If Massachusetts is to maintain its position as the chief centre of the shoe industry in the United States it must maintain this position by giving an ever increasing attention to the perfecting of new processes and the discovering of new materials. Manchester, N. H., and other New England cities are making a grade of shoes which compares very favorably with the cheaper grades made in Brockton and Lynn. St. Louis is already a strong competitor in the better grades. It certainly will pay a city, and consequently the State, to give close attention to the making of a better grade of shoes. If one compares the shoe statistics of Brockton and Lynn for instance, he will find that while there

is almost an equal number of workers in each city the total value of the shoe product in the latter city is about \$4,000,000 less than in the former city. About 23 per cent of this money goes to Brockton workers in the form of wages, making each shoe worker in Brockton receive in his yearly earnings over \$103 more than his fellow worker in Lynn. As Lynn shoes are rapidly grading up and increasing in value as compared with Brockton, so Manchester and St. Louis shoes are improving in quality. To maintain its position in the shoe industry Massachusetts must constantly strive to better its product and decrease its cost of production. The increase and the amount of wages depend upon the value of the shoe product of the State. For this reason every shoe worker in Massachusetts ought to be interested in promoting the making of higher grades of shoes. There is a limit, however, to the price that the consumer will pay, and the manufacturer's skill must be put to the test of furnishing a shoe which can be made by processes perhaps not yet invented or using materials not yet discovered or thought adaptable to shoes.

The economic arguments advanced for the establishment of special industrial schools for other industries are equally pertinent to the shoe industry. Competition must be met; not the rivalry of foreign countries, but that of other States. Massachusetts cannot expect to hold all of the shoe trade. The increased demand for shoes of all styles, qualities, and prices, with our growing and diversified population, is creating new markets. We are invading England with our shoe product. All Massachusetts ought to expect is that she will continue to be known as the State which produces the most and the best shoes of any single State.

There is not in Massachusetts a technical or industrial school teaching the underlying principles of the allied shoe industries. If established these schools could graduate young men qualified to discover new processes and materials. The arguments advanced for the establishment of textile schools in Massachusetts hold equally true for the starting of the shoe technical schools. While the two industries are far apart in manufacturing processes and materials used they are both in the same economic condition. Both industries have a large invested capital and a large force of workers who have been brought up in the industrial atmosphere pertaining to the industries in question and a certain positive inertia due to having long held the market. This market is gradually being taken away from them. The establishment of special shoe schools will materially assist the shoe industry in maintaining its prominence in the markets of the country just as the textile schools are doing for the textile industry.

The course of instruction in such schools should cover all the topics which would make the proper training of foremen and superintendents. They would include a physiology of the foot, methods of measuring the foot, fitting up the lasts, last making, pattern designing and grading, cutting, machining, lasting, finishing, treeing, dressing, and packing. They would also include a study of leather and the processes involved in its preparation, the study of the elements of mechanism, mechanical drawing, applied mathematics, chemistry, mill and engineering principles of management and cost accounts. Such a course would require three years to complete. The schools would require financial aid from cities, State, and those private individuals who are most deeply concerned in its product. It would not be a trade school but rather a technical school, meeting the broader needs of the shoe industry.

The facilities of the school should be available for evening classes. These classes should give thorough evening instruction to those who are engaged during the day in mills and workshops to enable those who wish it to perfect

their knowledge of other processes than those on which they are regularly engaged. In the course of several terms of such instruction they would be able to complete a thorough technical education without interfering with their daily duties. This evening course would offer options in several departments, each complete in itself, each option being suitable to the student's daily occupation in the factory.

The evening course will appeal to the shoe workers only when they see a monetary value accruing to them from attending an evening course. To make the evening instruction purely theoretical, to avoid instruction in the use of machinery would narrow the clientage very materially. On the other hand to impart instruction in the use of machinery, while it would advance the daily wage of the student would not materially advance the status of the industry. All evening school instruction should have a proper balance of practical and theoretical instruction in order that the industry itself may maintain a leading position and at the same time allow the worker to get an increase of wages because of his increased skill and intelligence. Learning to manipulate machinery will most strongly appeal to the evening school student. This ambition will form the basis of the evening work, but it must be supplemented by general principles illustrated by lectures and demonstrations covering those subjects with which every man in the trade should be familiar.

That there is a need of shoe schools for the shoe industry is unquestioned, and yet there might be a difference of opinion of the proper scope of such a school. If it is laid out on broad lines, if it is made a technical school in very truth, it will have a strong influence on the shoe industry of Massachusetts. If its doors are open evenings to those employed in the day time at the shoe industry it will have a tremendous effect on the shoe worker, and that in the long run means a benefit to the shoe industry. It will serve to unite in the minds of these trained men the various parts of the shoe industry. It will draw together the "divisions of the industry" into a complete whole—the shoe industry. In the same way the evening school will give to large numbers of shoe workers that broader conception of the processes and materials involved in each of the allied shoe trades. To the man working under the principle of "division of labor" will be given that training which will make him more competent to fill the needs of that particular division of the industry in which he may be working. From whatever side we look at it, from the point of view of the State, manufacturer, or the worker, we cannot fail to see the benefits accruing from the introduction of shoe technical schools in Massachusetts.

TECHNICAL EDUCATION: ENGLAND AND THE UNITED STATES.

The matter of technical education in Great Britain was touched upon and a quotation made from the *Electrical World and Engineer*, of London, on pages 343 and 344 of Massachusetts Labor Bulletin No. 43.

Mr. Arthur Shadwell, of England, has written us to the effect that the statements contained therein were misleading so far as they related to Great Britain. "There is a certain amount of truth in some of the remarks, but the general impression conveyed is quite erroneous and out-of-date. In the pro-

visions and use of facilities for technical education of workmen engaged in manufacturing industries, England is far ahead of Germany and of the United States. In the provision of facilities for higher technical education it is in some respects equal and in some superior, but in the use made of these facilities it is as yet inferior to both. That, however, is rapidly changing, and to say 'British employers have no use for the technical graduate' is no longer true. The extract is also quite wrong in stating that in Germany the method of making technical schooling precede practical experience is preferred. On the contrary, most technical schools, both high and middle, insist on a varying period of previous experience in the mills or workshops, and all of them prefer it."

Mr. Shadwell has written a remarkably interesting work on "Industrial Efficiency," and in Chapter XVII deals with technical education as follows:

The word "technical" is very elastic. From a perusal of prospectuses issued by various technical institutions, I gather that it covers all industries, trades and crafts, from cooking to shipbuilding, and from sick-nursing to pig-keeping, nearly all the arts, most of the sciences, several other branches of learning, such as history, political economy, literature and languages — in short, everything that can be learnt except elementary reading and writing at one end of the educational scale, and the old university and professional studies at the other end. No definition will cover the whole of this field, which extends far beyond that which is "useful," or directly preparatory to earning a livelihood. Nor is it possible to classify all the institutions which come under the head of "technical." Their development in a comparatively short time — for the most part within twenty years, and almost entirely within forty — is a very remarkable fact; it testifies to a belief in schooling which verges on the superstitious, and there are already signs that the thing has become a fetish to many.

It follows from the multiplicity and diversity of studies included that the subject of "technical education" is in a state of confusion. That applies to every country in some degree, but not equally. In England and America the confusion is chaotic, in Germany much less so, though this branch of education has not the same clearness of aim and organisation as elementary and secondary education. It cannot have quite the same clearness, because the purpose of specialised education is necessarily far more diversified than that of general education, but the well-defined organisation of the latter in Germany has provided a better basis for the super-position of specialised studies than the comparatively unsystematised scheme in America or the total absence of system in England.

England.

I pass on to England, and in doing so I wish to say with all possible emphasis that in no subject connected with this inquiry have I met with so much misapprehension or so much unjust depreciation of native institutions. No doubt that is largely owing to the fact that technical education in its modern form is a comparatively new thing in England, being but little more than twenty years old, and the impression of backwardness has remained when it is no longer deserved. The rapid development that has taken place within the last ten or fifteen years is all the more remarkable, and a sign of energy full of meaning to those who can read signs. I should hesitate to say that the provision in England to-day is superior to that of Germany on the whole, but in some respects it certainly is. The two are, however, so different that comparison halts. There is a fundamental difference which can be

put in this way. In Germany, as I have endeavoured to show, the technical schools supply the large industries mainly from above; they train men who have previously had a superior general education as heads, officials and experts.¹ In England they supply mainly from below; they educate boys belonging to the working-classes — boys at work in the mill or at the forge — into foremen, overlookers, managers and experts. In Germany the real work of the technical schools is done in day classes; in England in evening ones. Of course, the distinction is not absolute; there are evening classes in Germany and day classes in England, but the disparity is so great as to prove my point. The following comparative table, drawn up from particulars collected in 1900 by a committee for the corporation of Bolton, will illustrate the differences:

Technical or Higher Grade Schools.

GERMAN			ENGLISH		
Town	Day Students	Evening Students	Town	Day Students	Evening Students
Berlin (weaving school), . . .	20	250	Bolton, . . .	40	2,500
Nürnberg (building school), . . .	478	353	Birmingham, . . .	200	1,500
Chemnitz (weaving school), . . .	60	none	Leicester, . . .	18	1,000
Crefeld (textile school), . . .	200	none	Derby, . . .	100	1,000
Mühlhausen (chemistry), . . .	75	none	Salford, . . .	60	1,500
Reutlingen (spinning and weaving), . .	150	none	St. Helens, . . .	none	1,000

These figures need explanation. The German schools are specialised; the English ones include many miscellaneous studies which swell the numbers. In fact, they perform the functions of the German artisan (*Handwerker*) and guild schools, but they also teach the local manufacturing industries, and they teach them in evening classes. The Berlin school, which is quite exceptional, is the only one of the English type on the list. I think the Bolton committee must have been mistaken in saying that four of the schools had no evening students; my own information, which is borne out by Dr. Rose's reports, is that most of them have a few. It remains true, however, that they cater mainly for a superior class of students, and that Germany has not the provision for the technical training upwards of factory workers that we have in England.

This follows from another point of difference. If actual workers are to go to school, not only must the classes be in the evening, but there must be a school in the place where they work and live; that is to say, technical schools must be generally, if not universally, diffused. In England they are; in Germany they are not. For instance, Düsseldorf is a large and important manufacturing town in which several industries are carried on. Over 10,000 men are engaged in the metal trades, which include engineering works of the first rank; some 3,000 hands in textiles; and glass, paper, and chemicals are also manufactured on a large scale. Yet it has no technical school at all, except for art trades. Students of engineering must go to Duisburg or Hagen; of textiles to Barmen, Crefeld or Gladbach. Again, one of the most important textile towns in Saxony is Zwickau, but it has no school. Students must go to Reichenbach, Glauchau or Chemnitz, which is impossible for working hands. Many similar instances might be named. In England I have been unable to find any

¹ The proportion of men going in for industrial science who have taken the classical school course instead of the "modern" is very striking. Out of 2,736 students at the Prussian high schools in 1899 the distribution was: from *Gymnasia*, 1,406; from *Realgymnasia*, 1,065; from upper *Real* (modern) schools, 265; and of the candidates at a recent examination for the position of State engineer the proportion was: from *Gymnasia*, 70 per cent; from *Realgymnasia*, 27 per cent; and from *Real* schools only 3 per cent. At the Berlin High School, which occupies a more distinguished position than any other, only 4 per cent of the students in mechanical engineering came from modern schools. Those who think that the way to compete with Germany is to abolish Greek and Latin are invited to consider these figures.

such; every manufacturing town, even down to those with 20,000 inhabitants, has its own school, though it may be under the shadow of a big neighbour. Writers have urged this as a fault and have criticised the profusion in Lancashire, for example. Not content with a great technological college in Manchester, itself under the shadow of a modern university; not content with large technical schools in the other great towns — in Bolton, Oldham, Blackburn, Preston, Burnley, Bury, Rochdale, etc., etc., — every little place must have its own in addition. There are nearly 40 schools in Lancashire that teach cotton-spinning and weaving, as well as other things. Most of the large towns teach mechanical engineering also. Similarly in South Staffordshire, instead of being content with Wolverhampton, all the smaller places round about have schools of their own for teaching metal work and the manufacture of iron and steel. So, too, in Yorkshire, and in the Northamptonshire boot and shoe district. In London the profusion is bewildering; there are about a score of polytechnics or technical institutes and a great number of other institutions.

All this is not over-lapping or over-profusion, but absolutely necessary if working hands are to enjoy the advantages of technical instruction. The schools are not, of course, all of equal value, and some are very humble affairs, but the best are equal to any and the least are superior to the little hand-loom weaving places which count among the textile schools of Germany and vastly superior to the "corresponding schools" of America. If any other country had the same provision it would be extolled by English writers and platform orators in season and out of season.

The comparative merits of these English technical schools and the German ones to which they correspond (namely the middle schools described above) in regard to manufacturing industries may be a matter of opinion. The German ones are more centralised and specialised; the English more diffused and comprehensive. But I suppose that an ideal system would combine the merits of both, and that can be more readily accomplished from the English starting point. It is certainly easier to add special higher grade institutions to a mass of widely distributed popular ones than to create the latter; or rather — for this is really the way to put it — it is easier to provide for a comparatively small number of higher grade day students than to give the rank and file such opportunities as they have and use in England. When the superior students come forward they can be accommodated without difficulty. But apart from that I see great strength in the English system. I have a very firm belief in the capacity of our working-classes in the north. Their initiative, industry, and energy built up the great industrial edifice, and I see those qualities reflected to-day in the schools reared so quickly by local enterprise and in the eager intelligent faces of the factory lads who throng the evening classes. A scene at Blackburn in particular is printed on my memory, though I have seen the like elsewhere. I was taken into a class-room where a class on pattern-making for weaving was going on. About seventy lads were present. They were so well dressed and superior in their appearance that I asked, "Who are these boys?" "They are working-lads and the sons of workingmen," was the answer. Noting my surprise the teacher called out: "All of you who go to work in the mill to-morrow at six, hold up your hands;" and all but ten held them up. As I say, sights like this can be seen in every large manufacturing town in England, but very rarely in Germany or in America.¹

These young fellows are the pick of the working-classes, the most intelligent,

¹ The public expenditure on technical schools in England in 1901-02 was £1,008,947, of which £862,002 came from the State grant under the Customs and Excise Act and £146,945 from local rates; 3 county councils, 30 county boroughs, 99 boroughs and 189 urban districts made grants from local rates for technical instruction.

enterprising and ambitious. They do not intend to be workmen; they are qualifying for superior positions. I have found the technical schools universally regarded by trade unionists and intelligent workmen as "stepping stones out of the mill."

With regard to the teaching and equipment they are in some respects inferior and in some superior to those in German schools. The latter, I think, carry the intellectual training further, which might be expected from the character of the majority of their students. It was noticed by the party representing the brasswork industry of Birmingham which recently visited Berlin that the effect of the technical training there was to get more "conception" into the work;¹ and I think that holds good in general of all classes of work to which it is applicable. In textiles great attention is paid to the artistic side of dyeing and designing. But very good work in this direction is done in the English schools, too. I have seen a letter from the principal of Roubaix, which is one of the most famous European schools, praising some exercises done by the students at the Bradford College and asking how they were taught, as he could not get the same results; and a Bradford-taught boy was not long ago appointed teacher at Roubaix. But the distinguishing merit of English schools lies in the practical grasp of the subjects they impart. I have gained the impression that the teachers have a more real and actual, as distinguished from an academic, knowledge of manufactures. The schools do not teach the actual processes; I believe the trade unions object to that, and it is forbidden. They teach the principles and impart a theoretical mastery which cannot be acquired in the workshop or mill; but the teachers have the practical knowledge which can only be acquired there and are not dominated by the theoretical.

The equipment is probably better on the whole in the German schools, though to that there are exceptions. Most of them have been longer established and have had more time to complete their installations; and the greater concentration and specialisation permit of more expenditure on particular institutions. None of our textile schools, for instance, have so complete an installation of cotton machinery as München-Gladbach or so good a museum and library as Crefeld.

So much for the English schools corresponding to the German middle and lower ones. The German high schools are represented in England by the universities and some special colleges of science. Here again a remarkable development has taken place in recent years both in the establishment of science departments in the old universities, particularly Cambridge, and still more in the growth of the new universities of London, Birmingham, Liverpool, Manchester, Leeds, Sheffield, and South Wales. They do not, for the most part, contemplate the application of science to industry so directly as the German high schools, but there is no reason why they should not when called upon to do so. I understand from the highest authorities that in equipment and teaching our higher science schools are not inferior; sometimes they are superior. The departments of physical and mechanical science at Cambridge are not surpassed for the highest work by any in the world, and the metallurgical school at Sheffield, which has a very direct industrial bearing, is unique.² With the universities, the National Physical Laboratory and the coming Imperial College at Kensington it is not schools that we lack now, but scholars.

When comparisons are made between the number of students of engineering, for instance, at science schools here and in Germany or elsewhere, it is putting the

¹ The Brassworkers of Berlin and Birmingham.

² The *Kölnische Zeitung* expresses the opinion of German delegates at the meeting of the Iron and Steel Institute at Sheffield, in September, 1905, thus: "The extensive new equipments give one the impression that the well-known complaint of English people, that in the way of education they are much behind, does not apply any longer to Sheffield, particularly not as regards the metallurgic and engineering sections. On the contrary, there is much — indeed, very much — for Germany to learn there." Had they visited the metallurgical and mining sections at Birmingham they might have said the same.

boot on the wrong leg to call for more schools; the real difference lies in the lack of scholars. And the reason is that manufacturers in Germany and elsewhere have long ago realised the value of highly trained men in industry and have created a demand for them. It acts in two ways. Firstly, industry is recognised as a career for men of superior standing and education; the business of manufacturers' expert is well paid, and it attracts numbers who would otherwise go into professional or academic life. Secondly, those who do go in for it, instead of gaining all their knowledge at the works, go to a school to acquire a thorough scientific mastery. The thing is demanded and consequently it is supplied. In England the demand is only beginning because the need has not been felt. This accounts for the comparatively small number of industrial science students both at the high schools (universities) and at the day classes of the technical schools. The difference in the attitude of manufacturers is shown very clearly in some of the textile trades. In a comparatively small German mill making dress goods I found eighteen designers at work, all men of good education; in a large English one I found three or four, and those not of the same calibre. Some German makers of dress goods employ from sixty to eighty designers for several weeks in preparation for a new season. To be in the forefront it is necessary to have men who have not only learnt designing but possess intelligence and ideas. Fashions are often evolved by consultation between manufacturers' experts and buyers for the trade; the former invent patterns, colours or combinations, which are submitted to buyers, or the latter have ideas which must be translated into practical shape. I have seen this process going on in a German mill, where one of the designers happened to be engaged with a customer; the two were working out ideas together, making sketches, criticising, and altering.

It is only in this way that a hold on the market can be retained. Germans have particular need of well-trained brains for the work, because they are not naturally inventive or gifted with the innate sense of elegance possessed by the French, if they will pardon my saying so. Consequently the manufacturers give liberal support to the schools and further encourage them by providing employment to graduates. There is no doubt that it pays them. A manufacturer in Elberfeld was showing me one day a length of dress material. "That," he said, "is going to England, and it is made of English stuff. I get the materials from England, manufacture them, and send them back. I pay carriage both ways, and yet I can sell this in the English market." "How do you manage to do it?" I asked. "Well," he said, "you see this is a nice design; there is brains in it." It was a good answer, and, I am inclined to believe, the whole answer; for he pays higher wages and more for coal than manufacturers of similar goods in Yorkshire, and there are no kartells in his business. Our manufacturers often complain that German and other foreign competitors steal their designs, and doubtless it is true. They do the same and steal French designs themselves. Every nation helps itself to the ideas of others, but it is not possible to go on competing successfully with borrowed brains and second-hand ideas. The nation which is richest in ideas will come out first; and the Germans realise that more thoroughly, I think, than we do. Hence their efforts in this direction. Our own schools do excellent work, but they do not command the same superior material. Even when the students have had a higher general education they are in some respects inferior. Sir William Ramsay writes to me in answer to a question about the equipment of our technical schools, and the instruction given there:

Our teachers are, on the whole, as good as the German teachers, and our appliances often as good, and in general sufficient. It is in the previous training of the youths who enter our colleges and technical schools that we are defective. Not that German boys are cleverer, or that they have any special knowledge of science subjects when they enter, but they are much more systematically trained. All their school subjects dovetail together. The whole system is well worked out.

Here, of course, we once more strike the fundamental national difference, and of course, too, the advantage is not all on the German side. It opens up the subject of secondary education, into which I cannot enter, but I beg the reader to notice Sir William Ramsay's observation that the German boys aiming at the industrial science career have no special knowledge of science on entering the technical school or college.

Summing up this comparison we may say that while England has long been backward in technical education, it has of late years righted itself with so much energy that the provision from below is already greatly superior to that of Germany and the provision from above has at least equal potentiality, if the same use is made of it. And that has begun. The demand is increasing and the influence beginning to tell, though it has not yet had time to produce effects comparable in magnitude with those of Germany, which has had a long start. The movement will unquestionably be assisted by the co-ordination of educational institutions under the Education Act of 1902, which places the general and technical schools under the same local administration. I have no doubt that in a few years technical education will be developed in England to a degree of completeness which cannot be matched in any other country. The great weakness at present has nothing to do with education, or at least with schooling. It is the fact that a very large proportion of boys never learn or attempt to pursue any trade at all. They follow the line of least resistance, and as soon as they are released from school — and often before — they begin to earn money by unskilled labour as errand boys, shop boys, van boys, newspaper boys, and other casual occupations. There is always a demand for their services, and the temptation is irresistible. Thus they grow up without any special knowledge or skill at all. As they grow older and cannot live on boys' wages they are thrust out by the constantly renewed supply of younger lads, and drift into the ranks of casual or inefficient labour. This touches the manufacturing industries but little, because in manufacturing as distinguished from trading towns boys go into the works and factories and do acquire skill, though less thoroughly than in former times when apprenticeship was more general. The case is, therefore, somewhat of a digression from the strict point of view of this book. But it has such an important bearing on the general welfare of the community, and is really responsible for so much that is often attributed to want of technical education, that the mention of it is not irrelevant here. In a sense it is due to want of technical education; in the sense of training, that is to say, but not to the want of schools.

The United States.

After what has been said, the distinguishing features of technical education in the United States can be made clear by comparison in a short space. Broadly, it resembles the German more than the English system in that it supplies industries from above rather than below; but it possesses the merits of neither. It has not the specialisation and thoroughness of the one nor the general diffusion of the other. It is so unevenly distributed and so heterogeneous that classification is hardly possible. There are schools corresponding to all the three German types distinguished above, a few corresponding to the English type, and some of a novel type. The most important are the high schools, otherwise institutes of technology and technical departments of universities and colleges. They are very numerous and are attended by a large aggregate number of students. The studies preparatory to industrial occupations are classified under the head of several sorts of engineering — namely, civil, chemical, electrical, irrigation, mechanical, metallurgical, mining, marine, sanitary, and textile. Out of this list those which have to do with manufactures are, I presume, chemical, electrical, mechanical, metallurgical and textile engineering,

though I am not at all sure what is meant by chemical and textile engineering. In 1901, mechanical engineering was taught in 85 institutions to 5,623 students; electrical engineering to 2,696 students in 79 institutions; chemical engineering to 536 students in 15 institutions; and textile engineering to 234 students in 4 institutions; making a total of 9,089 students. If civil and mining engineering be added the total is 14,130. These are very large numbers, and they testify to a great demand for college-trained men. That is, in fact, the most salient feature of technical education in the States.

There seems to be a general opinion that technical education has not had much to do with the industrial expansion of the United States in the past. It has certainly played a very much smaller part than in Germany. Most of the large concerns were built by men of energy who had little or no schooling, and rose from the ranks. The present provision has come since the great railway and industrial development, and in consequence of it. The rapid expansion caused a demand for trained men, who could not be supplied fast enough. This, I think, accounts for what I have called the supply from above. There was an opening for men of good education, and the colleges hastened to fill it. The pace has continually increased, and the large corporations sometimes "order" men by the dozen. When I was at the Technological Institute at Boston I was told that the United States Steel Corporation had just ordered a batch of fifty; they go to the works on trial for a year. The large numbers turned out in recent years must be having a considerable effect. Yet I see that in 1900 one-fourth of the total number of "manufacturers and officials" engaged in manufacturing and mechanical occupations were foreigners. I think this highly significant fact must have escaped the attention of those who think that Europe has much to learn from America in the matter. The myth of "the American workman" and his superior skill has been dealt with more than once. Technical education, high and low, appears to suffer from the national defect of want of thoroughness, which arises from the craving for short cuts. Hence the correspondence schools and the attempt to teach industries in school without practical experience. Opinion may be divided on the question whether technical schooling ought to be preceded, accompanied, or followed by practical training. I can only form a second-hand judgment derived from men of experience, but their verdict is decisive. I have asked the question of a great many leading manufacturers and managers in all three countries, and they were unanimous in condemning school training without practical experience. In the German technical schools previous practical knowledge is usually insisted on for a full course of study. In America the theoretical study precedes practical work, and the complaint of manufacturers is that it often unfits men for the workshop. Some high authorities have found the American training shallow and superficial. This coincides with the experience of the Rhodes scholars at Oxford in other studies. American university graduates have been found less well grounded than English schoolboys of the same class.

From a broad survey of the whole educational field three salient results emerge, like peaks rising from the plain, and mark the three countries—in America commercial push, in Germany the careful performance of a set task, in England a traditional standard of character and conduct. The last is the contribution of the "public" schools, which are still the most valuable, as they are the most distinctive, educational asset we possess.¹ The relative value of the three will depend on the

¹ Their peculiar value lies in their traditions incorporated in a discipline which is enforced chiefly by the boys on each other in their corporate life. Men of ability but of humble birth, resentfully conscious of not having had the educational advantages enjoyed by the sons of wealthier men, are not aware that the distinctive merit of that education lies in the severe and prolonged discipline which it imposes, not in book-learning, but in personal conduct and habits.

point of view, and, of course, from the industrial standpoint the last is of hardly any value at all; but in other fields it is supremely valuable. And when you have a good thing, keep it; supplement it, add to it by all means, but keep it. The counsel which I see daily expounded by writers on education, that in order to get something that you have not you must begin by destroying something that you have, is a counsel of blindness and folly.

FEMALES IN GAINFUL OCCUPATIONS—1895, 1905.

In the following table we reproduce from the returns of the Decennial Census of 1905 the number of females engaged in gainful occupations in comparison with those enumerated in 1895:

CLASS OF OCCUPATIONS.	FEMALES ENGAGED IN GAINFUL OCCUPATIONS		PERCENTAGES OF INCREASE	PERCENTAGES	
	1895	1905	1905	1895	1905
Government, ...	2,846	3,981	39.88	0.34	0.39
Professional, ...	19,923	27,011	35.58	2.34	2.62
Domestic service, ¹	637,238	732,658	14.97	74.92	71.04
Personal service, ...	19,762	41,896	112.00	2.32	4.06
Trade, ...	24,142	43,183	78.87	2.84	4.19
Transportation, ...	368	652	77.17	0.04	0.06
Agriculture, ...	275	895	225.45	0.03	0.09
The Fisheries, ...	18	3	² —83.33	³ —	³ —
Manufactures, ...	142,951	170,729	19.43	16.81	16.55
Laborers, ...	207	156	² —24.64	0.02	0.01
Apprentices, ...	567	938	65.43	0.07	0.09
Children at work, ⁴	2,312	9,247	299.96	0.27	0.90
TOTALS, ...	850,609	1,031,349	21.25	100.00	100.00

¹ Includes housewives and persons engaged in housework receiving no compensation for services.

² Decrease.

³ Less than one one-hundredth of one per cent.

⁴ In 1895 children 10 to 14 years of age were included; in 1905 those 10 to 15 years of age.

The females engaged in gainful occupations numbered 1,031,349 in 1905, an increase over 1895 of 21.25 per cent. In the classification "Domestic Service" is included housewives, mothers, daughters, sisters, and others who are at home doing housework for which they receive no remuneration. The details of this class have not been completed at this writing, but, in 1895, housewives and persons so engaged in household work without compensation numbered 557,973, leaving 79,170 persons who were paid for services, and about 95,000 were so engaged in 1905.

Although the number of persons engaged in "Manufactures" shows an increase of 19.43 per cent in 1905 as compared with 1895, the relative rank has very slightly decreased, being 16.81 per cent in 1895 and 16.55 per cent in 1905. This "rank" is based upon the number in each class of occupations, the total being considered as 100 per cent. In other words (considering the figures for 1905 only), out of every 100 persons employed 17 were engaged in manufactures, 71 in domestic service, four in trade, four in personal service, nearly three in the professional class, and less than one in the other classes.

STRIKES AND LOCKOUTS IN 1905-06.

During the year ending September 30, 1906, there were 222 labor disputes, two hundred and thirteen being strikes, seven being lockouts, and two partaking of the nature both of a strike and a lockout. This number, as compared with the disputes in 1904-05, shows an increase of 64.

The following statement shows the number of labor disputes occurring in each city or town: Boston, 33; Lynn, 17; Springfield, 14; Lowell, 12; Fall River, nine; Chicopee, eight; Brockton and Lawrence, seven each; Worcester, six; Haverhill, New Bedford, and Waltham, five each; Holyoke, four; Beverly, Chelsea, Milford, Newburyport, North Adams, Pittsfield, Salem, and Ware, three each; Abington, Adams, Andover, Brookline, Cambridge, Chelmsford, Cheshire, Clinton, North Attleborough, Norwood, Quincy, Rockport, Rowley, Spencer, Taunton, Watertown, and Westborough, two each. The following had one dispute each: Acushnet, Barre, Brookfield, Dalton, Dedham, East Longmeadow, Everett, Fitchburg, Foxborough, Gloucester, Grafton, Hyde Park, Ipswich, Marlborough, Middleborough, Millbury, Milton, Northampton, Northbridge, Palmer, Revere, Somerville, Sterling, Stoughton, Uxbridge, Warren, Webster, Westford, Whitman, and Williamsburg. Two strikes recorded affected more than one city or town.

The number of strikes and lockouts, by months, follows: In 1905 — October, 18; November, 15; December, six; in 1906 — January, 17; February, 22; March, 20; April, 29; May, 32; June, 18; July, 11; August, 22; and September, 12.

Questions of remuneration were the most frequent causes of dispute. Thus, out of the 222 disputes, 109, or 49.10 per cent, were on questions of wages. Of this number 89, or 40.09 per cent of the total number of strikes, were waged for an increase in wages.

Questions of hours of labor caused 32 disputes; the employment of particular classes of persons, 29; trade unionism, 26; working conditions, 19; sympathy, three; three strikes were caused by demands for increase in wages and decrease in hours; and one strike was caused by the demand for increase in wages and the closed shop.

Considering the disputes by results we find that 68 succeeded, 27 were compromised, and 119 failed (in 49 instances strikers were reinstated and in 70 their places were filled), while eight were pending.

As to the method of settlements of the disputes during the year, 104 were settled by direct negotiations between the employers and the men, or representatives of the employers and the trade unions when the strike had received trade union authorization; 70 by filling places of strikers; in 26 cases the strikers returned to work on employers' terms without negotiations; 11 strikes were settled by arbitration; in three cases the unions to which the strikers belonged ordered the men to return; and in eight cases the strikes were pending.

THE MASSACHUSETTS STATE FREE EMPLOYMENT OFFICE.

This article presents a summary of business done by the State Free Employment Office in Boston during the 74 days from December 3, 1906, to February 28, 1907. Table I is taken from the *State Free Employment Offices Gazette No. 4*, bearing date of March 18, 1907.

TABLE I. — *Summary of Business Done — 74 Days — December 3, 1906, to February 28, 1907.*

CLASSIFICATION.	51 Days — Dec. 3, 1906, to Jan. 31, 1907	23 Days — Feb. 1 to Feb. 28, 1907	74 Days — Dec. 3, 1906, to Feb. 28, 1907
Registration of Males , ...	9,751	3,222	12,973
Positions offered, ...	4,370	2,063	6,433
Percentages — positions offered of registrations, ...	44.82	64.03	49.74
Registrations of Females , ...	3,263	1,139	4,402
Positions offered, ...	1,623	806	2,429
Percentages — positions offered of registrations, ...	49.74	70.76	55.18
Total registrations, ...	13,014	4,361	17,375
Total positions offered, ...	5,993	2,869	8,862
Percentages — positions offered of registrations, ...	46.05	65.79	51.00
Persons called for by employers, ...	6,750	2,716	9,466
Positions offered, ...	5,993	2,869	8,862
Percentages — positions offered of persons called for, ...	88.79	105.63	93.62

In Table II the industry classes are given for 2,758 persons for whom it is known that positions were actually obtained, as acknowledgment cards were received from the employers.

TABLE II. — *Positions Filled. Acknowledgment Cards Returned.*

INDUSTRY CLASSES.	Males	Females	Both Sexes
Professional service, ...	10	—	10
Domestic service, ...	181	742	923
Personal service, ...	99	119	218
Trade (mercantile service), ...	380	139	519
Transportation service, ...	122	—	122
Agriculture (farm laborers), ...	84	5	89
The Fisheries, ...	2	1	3
Manufactures, ...	271	238	509
Laborers (general or day), ...	156	—	156
Apprentices, ...	123	1	124
Unskilled (not classified), ...	65	20	85
TOTALS, ...	1,493	1,265	2,758

Of the 1,493 males, 1,150 were single, 279 were married, while for 64 the conjugal condition was not stated.

Of the 1,265 females, 1,046 were single, 187 were married, while for 32 the conjugal condition was not given.

Of the total for both sexes (2,758), 2,196 were single, 466 were married, while the conjugal condition for 96 was not given.

The number of persons accounted for in Table II does not represent all the positions that have been actually filled up to February 28. It only shows the number of persons for whom acknowledgment cards have been

received from employers up to a certain date. Great difficulty has been experienced in securing statements from employers that they have or have not engaged the services of persons sent out. This branch of the service, however, is being constantly improved.

In some free employment offices, as the records are kept, if a person is sent to a position the position is considered as having been filled, but it has been deemed advisable in the Massachusetts Office to keep a record, first, of registrations; second, of positions offered; and, third, of positions actually known to be filled as indicated by acknowledgment cards signed and returned by employers. If all the employers who have given work to persons sent from the State Free Employment Office had filled out the reply portion of the Introduction Cards, the number of persons represented in Table II would have been largely increased, but to just what figures it is impossible to state.

Table III shows place of birth, with classification by native and foreign born and by sex.

TABLE III. — *Place of Birth, by Native and Foreign Born and Sex.*

CLASSIFICATION.	Males	Fe- males	Both Sexes	CLASSIFICATION.	Males	Fe- males	Both Sexes
PLACE OF BIRTH.	1,493	1,265	2,758	PLACE OF BIRTH — CON.			
Native Born.	1,040	674	1,714	Foreign Born — CON.			
California, ...	1	—	1	Barbadoes, ...	1	—	1
Connecticut, ...	11	9	20	Belgium, ...	—	2	2
District of Columbia, ...	1	—	1	British Guiana, ...	1	—	1
Florida, ...	2	—	2	Bulgaria, ...	—	1	1
Georgia, ...	1	—	1	Canada, ...	23	32	55
Illinois, ...	8	7	15	Cape Breton, ...	—	7	7
Indiana, ...	1	—	1	China, ...	1	—	1
Iowa, ...	—	3	3	Corsica, ...	1	—	1
Kentucky, ...	2	—	2	Cuba, ...	1	—	1
Louisiana, ...	1	—	1	Denmark, ...	3	—	3
Maine, ...	69	55	124	Egypt, ...	—	1	1
Maryland, ...	6	1	7	England, ...	80	62	142
Massachusetts, ...	704	449	1,153	Finland, ...	2	—	2
Michigan, ...	2	—	2	France, ...	2	—	2
Mississippi, ...	1	—	1	Germany, ...	17	9	26
Missouri, ...	7	1	8	Greece, ...	3	—	3
Montana, ...	—	1	1	Holland, ...	2	—	2
New Hampshire, ...	32	24	56	Ireland, ...	112	255	367
New Jersey, ...	1	6	7	Italy, ...	18	2	20
New York, ...	58	25	83	New Brunswick, ...	15	27	42
North Carolina, ...	3	4	7	Newfoundland, ...	5	16	21
Ohio, ...	8	2	10	Norway, ...	3	7	10
Pennsylvania, ...	12	8	20	Nova Scotia, ...	34	74	108
Rhode Island, ...	19	22	41	Poland, ...	4	—	4
South Carolina, ...	—	1	1	Porto Rico, ...	1	—	1
South Dakota, ...	1	—	1	Portugal, ...	1	2	3
Tennessee, ...	1	2	3	Prince Edward Island, ...	13	25	38
Texas, ...	1	1	2	Russia, ...	59	20	79
Vermont, ...	18	22	40	Scotland, ...	18	31	49
Virginia, ...	8	5	13	Shetland Isles, ...	1	—	1
West Virginia, ...	—	1	1	Spain, ...	1	—	1
Wisconsin, ...	—	2	2	Sweden, ...	17	13	30
Not stated, ...	61	23	84	Switzerland, ...	1	—	1
Foreign Born.	453	591	1,044	Syria, ...	3	—	3
Africa, ...	1	—	1	Turkey, ...	1	—	1
Argentina, ...	1	—	1	Wales, ...	2	—	2
Austria, ...	3	4	7	West Indies, ...	2	1	3

Of the 1,493 males, 1,040, or 69.66 per cent, were native born and 453, or 30.34 per cent, were foreign born.

Of the 1,265 females, 674, or 53.28 per cent, were native born and 591, or 46.72 per cent, were foreign born.

Considering both sexes, of the total (2,758), 1,714, or 62.15 per cent, were native born and 1,044, or 37.85 per cent, were foreign born.

Of the 1,040 males who were native born, 704, or 67.69 per cent, were born in Massachusetts.

Of the 674 females who were native born, 449, or 66.62 per cent, were born in Massachusetts.

Of the 1,714 of both sexes who were native born, 1,153, or 67.27 per cent, were born in Massachusetts.

Of the 1,044 of both sexes who were foreign born, 367, or 35.15 per cent, were born in Ireland, while 834, or 79.89 per cent (including those born in Ireland), were born in some part of the British Empire.

The native-born applicants gave as their birthplaces, not including Massachusetts, 32 different States of the Union,¹ while the foreign-born applicants give as their birthplaces 40 different foreign countries or well-known geographical divisions of such countries.

It was thought by many before the State Free Employment Office was established, and by some since, that the applications would be principally for domestic help and laborers. The results so far have shown that this is not the case, for the applicants represent a very wide range of employment. This fact will be evident from an inspection of Table IV, which follows, in which are given the occupations of the 2,758 persons who have been reported by employers as having been put at work, together with specification by sex and the wages received by them for their services.

TABLE IV. — *Occupations and Wages, by Sex.*

[In the following table, *n. s.* indicates "not specified;" *mob* means "per month with board;" *wkb* means "per week with board."]

MALES.	MALES — Con.
Agents (freight). 1, \$15.00.	18, \$5.00; 3, \$6.00; 1, \$7.00; 4, \$8.00; total, 60; average per week, \$4.72.
Agents (real estate). 1, \$10.00.	Artists (scenic). 1, \$15.00.
Apprentices (bakery). 1, \$4.00.	Attendants. 4, \$4.62; 1, \$5.08; 2, \$10.00; total, 7; average per week, \$6.22.
Apprentices (building). 1, \$4.50; 1, \$6.00; total, 2; average per week, \$5.25.	Bakers. 1, \$12.00.
Apprentices (carpets). 1, \$5.00.	Bakers' helpers. 1, \$7.00.
Apprentices (cigars). 1, \$5.00; 1, \$6.00; total, 2; average per week, \$5.50.	Bell boys. 1, \$4.00; 1, \$4.62; 1, \$6.00; 1, \$7.50; total, 4; average per week, \$5.53. — 1, \$15.00 (<i>mob</i>); 1, \$25.00 (<i>mob</i>); 1, \$35.00 (<i>mob</i>); total, 3; average, \$25.00 (<i>mob</i>).
Apprentices (confectionery). 1, \$5.00.	Blacksmiths. 3, \$15.00.
Apprentices (dry goods). 2, \$4.00; 1, \$5.00; total, 3; average per week, \$4.33.	Blacksmiths' helpers. 3, \$10.00.
Apprentices (electricians). 2, \$4.00; 1, \$4.50; 1, \$9.00; total, 4; average per week, \$5.38.	Bookbinders. 1, \$5.00.
Apprentices (farming). 1, \$5.00.	Bookkeepers. 1, \$10.00; 4, \$12.00; total, 5; average per week, \$11.60.
Apprentices (florists). 1, \$6.00.	Bottle washers. 1, \$7.00.
Apprentices (gasfitters). 1, \$4.00.	Boys (grocery). 1, \$4.00.
Apprentices (groceries). 2, \$5.00; 1, \$6.00; 2, \$7.00; 1, \$8.00; total, 6; average per week, \$6.33.	Boys (insurance). 1, \$4.00.
Apprentices (hostlers). 1, \$5.00.	Boys (printing). 2, \$5.00.
Apprentices (kitchen work). 1, \$2.00 (<i>wkb</i>); 1, \$3.00 (<i>wkb</i>); total, 2; average, \$2.50 (<i>wkb</i>).	Boys (shoe store). 1, \$4.00.
Apprentices (leather). 1, \$3.50; 1, \$4.00; 1, \$5.00; total, 3; average per week, \$4.17.	Brakemen. 1, \$10.00.
Apprentices (machinists). 2, \$6.00.	Brass finishers. 1, \$10.00; 1, \$13.50; 1, \$15.00; total, 3; average per week, \$12.83.
Apprentices (manufactures, <i>n. s.</i>). 1, \$3.50; 1, \$4.00; 4, \$5.00; 4, \$6.00; total, 10; average per week, \$5.15.	Brass molders. 1, \$18.00; 1, \$21.00; total, 2; average per week, \$19.50.
Apprentices (mechanics). 1, \$4.00.	Brass polishers. 2, \$12.00; 1, \$16.50; total, 3; average per week, \$13.50.
Apprentices (millinery). 1, \$4.00.	Brass workers. 1, \$15.00.
Apprentices (pattern makers). 1, \$4.00.	Bundle boys. 2, \$4.00.
Apprentices (provisions). 1, \$6.00.	Butlers. 1, \$25.00 (<i>mob</i>).
Apprentices (printing). 1, \$3.50; 2, \$4.00; 1, \$4.50; 1, \$5.00; 1, \$8.00; total, 6; average per week, \$4.83.	Cabinet makers. 1, \$15.00; 1, \$16.00; total, 2; average per week, \$15.50.
Apprentices (shoes). 2, \$4.00; 2, \$6.00; total, 4; average per week, \$5.00.	Carpenters. 1, \$12.00; 1, \$13.50; 1, \$14.00; 2, \$15.00; 4, \$19.68; 1, \$20.00; total, 10; average per week, \$16.82.
Apprentices, n. s. 1, \$3.00; 31, \$4.00; 2, \$4.50;	Carriage washers. 1, \$15.00.

¹ Includes the District of Columbia.

TABLE IV. — *Occupations and Wages, by Sex* — Continued.

MALES — Con.

Chauffeurs. 1, \$20.00.
Chore boys. 1, \$5.00 (*wkb*).
Cleaners. 1, \$9.00.
Clerks (drug). 1, \$10.00; 1, \$12.00; total, 2; average per week, \$11.00.
Clerks (grocery). 1, \$5.00; 1, \$6.00; 1, \$8.00; 4, \$10.00; 4, \$12.00; total, 11; average per week, \$9.73.
Clerks (order). 1, \$12.00; 1, \$14.00; total, 3; average per week, \$12.67.
Clerks, n. s. 1, \$5.00; 3, \$6.00; 1, \$7.00; 1, \$9.00; 4, \$10.00; 6, \$12.00; total, 16; average per week, \$9.44.
Climbers (gypsy moth). 1, \$12.00.
Coachmen. 1, \$9.23; 1, \$10.00; total, 2; average per week, \$9.62.
Coal passers. 1, \$4.62; 1, \$9.00; 2, \$10.50; total, 4; average per week, \$8.66. — 2, \$25.00 (*mob*).
Compositors. 1, \$9.00; 2, \$10.00; 2, \$12.00; 1, \$15.00; 1, \$18.00; total, 7; average per week, \$12.29.
Cooks. 1, \$5.00; 1, \$5.77; 1, \$6.92; 1, \$7.00; 3, \$8.00; 1, \$9.00; 10, \$10.00; 1, \$11.54; 8, \$12.00; 1, \$13.85; 5, \$15.00; 1, \$17.31; total, 34; average per week, \$10.92. — 1, \$6.00 (*wkb*); 1, \$15.00 (*mob*).
Coremakers. 1, \$16.50.
Cutters (shoes). 1, \$9.00; 1, \$10.00; total, 2; average per week, \$9.50.
Cutting machine operators. 1, \$5.00.
Dishwashers. 1, \$3.46; 1, \$3.69; 3, \$4.00; 2, \$5.00; 2, \$6.00; 2, \$7.00; 1, \$9.23; 1, \$10.00; total, 13; average per week, \$5.72. — 1, \$5.00 (*wkb*); 1, \$6.00 (*wkb*); 1, \$7.00 (*wkb*).
Distributors (circulars). 2, \$6.00 and car fares.
Door boys. 1, \$3.50.
Drivers (milk wagons). 1, \$14.00. — 1, \$18.00 (*mob*); 1, \$20.00 (*mob*).
Drivers (delivery wagons). 1, \$8.00; 1, \$11.00; total, 2; average per week, \$9.50.
Draftsmen (architectural). 1, \$25.00.
Electricians. 1, \$12.00; 1, \$15.00; 1, \$21.00; total, 3; average per week, \$16.00.
Elevator tenders. 1, \$4.00; 1, \$4.15; 4, \$5.00; 3, \$6.00; 1, \$6.50; 4, \$7.00; 3, \$8.00; 2, \$9.00; 1, \$10.00; total, 20; average per week, \$6.63. — 1, \$5.00 (*wkb*).
Employees (bakery). 1, \$3.00.
Employees (cigars). 3, \$6.00.
Employees (leather factory). 1, \$4.00.
Employees (mills). 1, \$10.50; 1, \$20.00; total, 2; average per week, \$15.25.
Employees (nickel plating). 1, \$5.00.
Employees (paints and oils). 1, \$6.00.
Employees (shoe shops). 1, \$12.00.
Employees (trunk factory). 1, \$5.00.
Engineers (stationary). 2, \$10.00; 1, \$12.00; 4, \$15.00; 3, \$16.00; 2, \$18.00; total, 12; average per week, \$14.67.
Errand boys. 1, \$3.00; 11, \$3.50; 104, \$4.00; 4, \$4.50; 13, \$5.00; 1, \$5.50; 9, \$6.00; 1, \$7.00; total, 144; average per week, \$4.22.
Expressmen. 1, \$14.00.
Factory work (box). 1, \$6.00.
Factory work (cigars). 2, \$5.00; 1, \$6.00; total, 3; average per week, \$5.33.
Factory work (ladies' belts). 1, \$4.00.
Farm hands. 1, \$2.30; 1, \$3.23; 3, \$4.15; 10, \$4.62; 1, \$5.08; 8, \$5.77; 2, \$6.92; 1, \$9.00; 2, \$9.23;

MALES — Con.

2, \$10.00; 2, \$12.00; total, 33; average per week, \$6.08. — 2, \$10.00 (*mob*); 7, \$15.00 (*mob*); 2, \$16.00 (*mob*); 6, \$18.00 (*mob*); 26, \$20.00 (*mob*); 3, \$22.00 (*mob*); 14, \$25.00 (*mob*); 2, \$30.00 (*mob*); total, 62; average, \$20.34 (*mob*).
Firemen (stationary). 2, \$3.23; 1, \$6.92; 1, \$8.08; 1, \$9.00; 2, \$9.23; 1, \$10.00; 1, \$10.50; 3, \$12.00; 1, \$12.25; 6, \$14.00; 10, \$15.00; 1, \$17.00; total, 30; average per week, \$12.29. — 3, \$35.00 (*mob*); 2, \$40.00 (*mob*); total, 5; average, \$37.00 (*mob*).
Fish cutters. 1, \$12.00.
Foremen (machine shops). 1, \$25.00.
Gasfitters' helpers. 1, \$6.00; 1, \$8.00; total, 2; average per week, \$7.00.
General work. 6, \$4.00; 1, \$4.50; 6, \$5.00; 10, \$6.00; 1, \$7.00; 2, \$8.00; 6, \$9.00; 10, \$10.00; 3, \$10.50; 1, \$11.54; 6, \$12.00; 1, \$13.00; 1, \$13.50; total, 54; average per week, \$8.16. — 1, \$3.00 (*wkb*); 1, \$20.00 (*mob*).
General work (private families). 1, \$35.00 (*mob*).
Grease collectors. 1, \$6.00.
Grinders (rubber factory). 1, \$10.00.
Helpers (foundry). 2, \$9.00.
Helpers (grocery stores). 1, \$6.00.
Helpers (milk wagons). 1, \$5.77; 1, \$12.00 (*mob*).
Helpers (piano factory). 1, \$5.00.
Hotel or restaurant work. 1, \$4.62; 1, \$5.00; 1, \$6.00; 2, \$7.00; 2, \$8.00; 1, \$9.00; 4, \$10.00; 1, \$11.00; 1, \$11.54; 3, \$12.00; 1, \$15.00; total, 18; average per week, \$9.34. — 2, \$5.00 (*wkb*); 1, \$6.00 (*wkb*); 2, \$25.00 (*mob*).
Housemen. 1, \$10.00. — 1, \$25.00 (*mob*).
Housemiths. 1, \$15.00.
Ice-cutters. 3, \$6.00 (*wkb*).
Ice-men. 3, \$12.00. — 1, \$4.00 (*wkb*); 10, \$26.00 (*mob*).
Iron workers. 1, \$10.00; 1, \$12.00; 1, \$15.00; 1, \$18.00; total, 4; average per week, \$13.75.
Janitors. 1, \$5.77; 1, \$6.00; 1, \$7.00; 2, \$8.00; 2, \$8.08; 1, \$9.00; 4, \$10.00; 2, \$12.00; 1, \$14.00; 2, \$16.00; total, 17; average per week, \$10.00. — 1, \$25.00 (*mob*); 1, \$50.00 (*mob*).
Kitchen work. 1, \$2.30; 1, \$3.69; 4, \$5.00; 2, \$6.00; 2, \$7.00; 2, \$8.00; 2, \$10.00; total, 14; average per week, \$6.29. — 1, \$3.00 (*wkb*); 3, \$4.00 (*wkb*); 2, \$5.00 (*wkb*); 1, \$7.50 (*wkb*); 2, \$8.00 (*wkb*); total, 9; average, \$5.39 (*wkb*). — 1, \$15.00 (*mob*); 3, \$20.00 (*mob*); total, 4; average, \$18.75 (*mob*).
Laborers (general). 1, \$4.15; 3, \$6.00; 1, \$6.92; 3, \$7.00; 8, \$7.20; 8, \$8.00; 7, \$8.40; 26, \$9.00; 3, \$9.90; 8, \$10.00; 8, \$10.50; 10, \$12.00; 1, \$12.25; 2, \$13.00; 1, \$14.00; 2, \$15.00; total, 92; average per week, \$9.35. — 2, \$15.00 (*mob*); 2, \$25.00 (*mob*); 3, \$35.00 (*mob*); total, 7; average, \$26.63 (*mob*).
Laundry workers. 1, \$4.62; 1, \$10.00; total, 2; average per week, \$7.31.
Locksmiths. 1, \$10.00.
Lumber mill workers. 1, \$15.00.
Machinists. 1, \$5.00; 2, \$6.46; 2, \$9.00; 6, \$10.00; 9, \$12.00; 1, \$12.50; 2, \$13.00; 1, \$13.20; 3, \$13.50; 1, \$14.00; 2, \$14.40; 10, \$15.00; 5, \$16.50; 1, \$17.00; 6, \$18.00; total, 52; average per week, \$13.39.
Machinists' helpers. 2, \$5.00; 1, \$7.00; 1,

1 And commission.

TABLE IV.—*Occupations and Wages, by Sex—Continued.*

MALES—Con.

\$8.00; 1, \$9.00; 3, \$10.00; 1, \$11.00; 2, \$12.00; total, 11; average per week, \$9.00.

Machine operators. 1, \$6.00.

Managers (hotels and restaurants). 1, \$15.00; 1, \$17.31; total, 2; average per week, \$16.16.

Meat cutters. 1, \$12.00; 1, \$18.00; total, 2; average per week, \$15.00.

Office boys. 1, \$3.00; 3, \$3.50; 31, \$4.00; 3, \$4.50; 9, \$5.00; 13, \$6.00; 1, \$7.00; total, 61; average per week, \$4.61.

Order boys. 1, \$6.00.

Overseers (buildings). 1, \$18.00.

Oystermen. 1, \$10.00.

Packers (biscuit). 1, \$4.00; 1, \$6.00; total, 2; average per week, \$5.00.

Packers (in stores). 1, \$7.00; 1, \$10.00; total, 2; average per week, \$8.50.

Packers (soap). 1, \$4.00; 1, \$9.00; total, 2; average per week, \$6.50.

Packers, n. s. 1, \$4.00.

Painters (carriage and house). 2, \$15.00; 1, \$18.00; total, 3; average per week, \$16.00.

Painters, n. s. 2, \$12.00; 1, \$13.50; 4, \$15.00; 1, \$18.00; total, 8; average per week, \$14.44.

Painters' helpers. 1, \$7.00.

Picking over nuts. 2, \$4.00.

Planing machine operators. 1, \$13.00.

Plumbers. 1, \$9.00; 1, \$15.00; 1, \$21.00; total, 3; average per week, \$15.00.

Plumbers' helpers. 1, \$5.00; 1, \$8.00; 1, \$10.00; 1, \$12.00; total, 4; average per week, \$8.75.

Porters. 1, \$5.00; 1, \$5.77; 1, \$6.00; 1, \$6.92; 1, \$7.00; 2, \$8.00; 2, \$9.00; 15, \$10.00; 6, \$12.00; total, 30; average per week, \$9.56. — 1, \$6.00 (*wkb*). — 3, \$20.00 (*mob*); 1, \$25.00 (*mob*); 1, \$30.00 (*mob*); 1, \$40.00 (*mob*); total, 6; average, \$25.83 (*mob*).

Press feeders. 2, \$8.00; 2, \$9.00; 1, \$10.00; 1, \$12.00; total, 6; average per week, \$9.33.

Pressmen. 1, \$10.00; 1, \$10.50; 2, \$12.00; 1, \$16.00; total, 5; average per week, \$12.10.

Printers. 1, \$12.00; 1, \$14.00; total, 2; average per week, \$13.00.

Repairers (stoves). 1, \$10.00.

Roofers' helpers. 1, \$5.00; 1, \$12.00; total, 2; average per week, \$8.50.

Rubber factory operatives. 4, \$9.00.

Salesmen. 2, \$6.00; 1, \$10.00; 6, \$12.00; 1, \$15.00; 2, \$20.00; total, 12; average per week, \$12.42.

Scrubmen. 1, \$5.77; 1, \$6.92; total, 2; average per week, \$6.35.

Shippers. 5, \$6.00; 2, \$7.00; 6, \$8.00; 1, \$9.00; 3, \$10.00; 2, \$10.50; 1, \$12.00; total, 20; average per week, \$8.20.

Shoe cutters. 1, \$12.00; 1, \$16.00; total, 2; average per week, \$14.00.

Shoemakers. 1, \$9.00; 1, \$18.00; total, 2; average per week, \$13.50.

Skirt cutters. 1, \$12.00.

Solderers. 1, \$12.00.

Solicitors. 1, \$6.00; 1, \$15.00; total, 2; average per week, \$10.50.

Stablemen. 2, \$5.77; 1, \$9.00; 2, \$10.00; 2, \$12.00; 1, \$15.00; total, 8; average per week, \$9.94. — 1, \$17.00 (*mob*).

Steamfitters. 1, \$13.50; 2, \$15.00; 1, \$18.00; 1, \$21.00; total, 5; average per week, \$16.50.

Stenographers. 1, \$9.00; 1, \$10.00; 1, \$15.00; total, 3; average per week, \$11.33.

Stock boys. 2, \$4.00; 1, \$4.50; 1, \$6.00; 1, \$8.00; total, 5; average per week, \$5.30.

MALES—Con.

Snipers (theatrical). 6, \$5.00 a week.

Tailors. 1, \$13.00; 1, \$16.00; total, 2; average per week, \$14.50.

Teamsters. 2, \$6.00; 1, \$7.50; 17, \$10.00; 3, \$11.00; 35, \$12.00; 1, \$13.00; 4, \$14.00; 2, \$18.00; total, 65; average per week, \$11.50. — 7, \$35.00 (*mob*).

Teamsters' helpers. 1, \$4.00; 2, \$4.62; 1, \$5.00; 1, \$6.00; 1, \$7.00; 1, \$9.00; 1, \$9.23; total, 8; average per week, \$6.18.

Tenders (bowling alleys). 1, \$8.00.

Theatre work. 1, \$3.00.

Tool makers. 1, \$19.50; 1, \$21.00; total, 2; average per week, \$20.25.

Traveling salesmen. 1, \$12.00.

Ushers. 1, \$6.00.

Waiters. 1, \$4.00; 1, \$4.50; 1, \$4.85; 1, \$5.00; 1, \$6.00; 1, \$6.92; 2, \$7.00; 5, \$8.00; 4, \$9.00; 1, \$10.00; 1, \$12.00; total, 19; average per week, \$7.54. — 1, \$4.00 (*wkb*); 1, \$5.00 (*wkb*); 1, \$25.00 (*mob*).

Waste handlers. 1, \$9.00.

Watchmen. 2, \$10.00; 1, \$12.00; total, 3; average per week, \$10.67.

Wiremen. 1, \$9.00.

Woodchoppers. 9, \$6.92; 1, \$10.00; 2, \$12.00; total, 12; average per week, \$8.02. — 1, \$30.00 (*mob*); 6, \$35.00 (*mob*); total, 7; average, \$34.29 (*mob*).

Woodworkers. 1, \$5.00.

Wool sorters. 2, \$5.00; 1, \$6.00; 1, \$7.00; total, 4; average per week, \$5.75.

FEMALES.

Accountants. 1, \$6.00.

Addressers. 2, \$3.00; 1, \$3.50; 3, \$4.00; 4, \$5.00; 3, \$6.00; total, 13; average per week, \$4.58.

Apprentices (dressmakers). 1, \$5.00.

Attendants. 1, \$2.30.

Bookbinders. 1, \$4.00.

Bookkeepers. 4, \$5.00; 3, \$6.00; 2, \$7.00; 3, \$8.00; 2, \$10.00; 3, \$12.00; total, 17; average per week, \$7.76.

Boxmakers (paper). 1, \$5.00.

Calendar work. 1, \$5.00.

Candy wrappers. 1, \$3.50; 1, \$4.00; total, 2; average per week, \$3.75.

Canvassers. 1, \$5.00; 3, \$6.00; 2, \$7.00; 1, \$8.00; total, 7; average per week, \$6.43.

Case makers (jewelry and eye glass). 1, \$4.00.

Cash girls. 1, \$4.00.

Cashiers. 1, \$5.00; 6, \$6.00; 1, \$6.50; 1, \$12.00; total, 9; average per week, \$6.50.

Chambermaids. 3, \$3.00; 2, \$3.23; 2, \$3.46; 7, \$3.50; 1, \$3.69; 10, \$4.00; 2, \$4.15; 1, \$4.50; 10, \$5.00; 1, \$5.50; total, 39; average per week, \$4.00.

Cleaners. 2, \$3.00; 1, \$3.20; 1, \$3.23; 1, \$3.46; 7, \$4.00; 5, \$4.50; 4, \$5.00; 12, \$6.00; 3, \$7.20; 4, \$9.00; total, 40; average per week, \$5.40. — 1, \$13.00 (*mob*); 1, \$15.00 (*mob*); 1, \$16.00 (*mob*); total, 3; average, \$14.67 (*mob*). — 1, \$6.00 (*wkb*).

Clerks. 1, \$5.00; 2, \$6.00; total, 2; average per week, \$5.67.

Companions. 1, \$3.00.

Compositors. 1, \$9.00.

Cooks. 1, \$2.50; 4, \$4.00; 1, \$4.15; 1, \$4.62; 18, \$5.00; 21, \$6.00; 12, \$7.00; 18, \$8.00; 4, \$9.00; 2, \$10.00; total, 82; average per week, \$7.65. — 1, \$25.00 (*mob*).

Copy readers. 1, \$4.00.

Counting shoes. 2, \$5.00.

Day work. 1, \$5.00; 1, \$4.50 (*wkb*).

TABLE IV. — *Occupations and Wages, by Sex* — Continued.

FEMALES — Con.

Dishwashers. 1, \$2.50; 2, \$3.00; 1, \$3.46; 1, \$3.50; 9, \$4.00; 5, \$4.50; 7, \$5.00; 1, \$5.50; 5, \$6.00; total, 32; average per week, \$4.51.

Dressmakers. 1, \$3.00; 1, \$6.00; 1, \$10.00; total, 3; average per week, \$6.33.

Dust samples. 3, \$4.00.

Embroiderers. 1, \$6.00.

Employees (bakery). 1, \$5.00; 1, \$6.00; total, 2; average per week, \$5.50.

Employees (photographs). 1, \$3.50.

Envelope makers. 1, \$4.00.

Errand girls. 1, \$3.00; 2, \$3.50; 1, \$4.00; 1, \$6.00; total, 5; average per week, \$4.00.

Factory work (art). 8, \$4.00; 1, \$5.00; 1, \$6.00; 1, \$7.00; 1, \$9.00; total, 12; average per week, \$4.92.

Factory work (belts). 1, \$4.00; 1, \$6.00; total, 2; average per week, \$5.00.

Factory work (boxes). 6, \$4.00; 4, \$5.00; 5, \$6.00; 1, \$7.00; total, 16; average per week, \$5.06.

Factory work (buttons). 5, \$4.00; 1, \$4.50; total, 6; average per week, \$4.08.

Factory work (confectionery). 1, \$3.50; 3, \$4.00; 1, \$4.50; total, 5; average per week, \$4.00.

Factory work (fur sewers). 1, \$4.00.

Factory work (labellers). 1, \$3.50; 2, \$4.00; total, 3; average per week, \$3.83.

Factory work (lace curtains). 1, \$3.00.

Factory work (net and twine). 1, \$5.00.

Factory work (novelties). 1, \$4.50; 1, \$5.00; total, 2; average per week, \$4.75.

Factory work (nuts). 1, \$4.00; 2, \$6.00; total, 3; average per week, \$5.33.

Factory work (paper). 2, \$4.00; 2, \$6.00; total, 4; average per week, \$5.00.

Factory work (power machine stitchers). 1, \$5.00.

Factory work (shoes). 1, \$4.00; 1, \$5.00; total, 2; average per week, \$4.50.

Factory work (shoe polish). 1, \$6.00.

Factory work (silk winders). 1, \$4.50.

Factory work (stitchers). 2, \$4.00; 1, \$7.00; total, 3; average per week, \$5.00.

Factory work (wire stitching). 1, \$4.00.

Factory work (n. s.). 4, \$3.50; 36, \$4.00; 1, \$4.06; 9, \$4.50; 23, \$5.00; 10, \$6.00; 3, \$7.00; total, 86; average per week, \$4.63.

Farm work. 1, \$3.46; 1, \$4.50; 1, \$9.23; total, 3; average per week, \$5.73.

Feeders (mangle work). 1, \$6.00.

Folders. 1, \$4.00.

Foreladies. 3, \$7.00.

General work. 9, \$4.00; 1, \$4.06; 1, \$4.50; 5, \$5.00; 1, \$5.42; 2, \$6.00; total, 19; average per week, \$4.58.

Herring cutters. 1, \$3.00.

Hotel work (folders). 1, \$5.00.

Hotel work (glass or linen room). 1, \$3.00. — 1, \$6.00 (*week*).

Hotel work (store room). 1, \$5.00. — 1, \$16.00 (*month*).

Hotel work, n. s. 1, \$3.00; 1, \$3.23; 1, \$4.00; total, 3; average per week, \$3.41.

Houskeepers. 4, \$2.00; 1, \$2.30; 8, \$3.00; 2, \$3.50; 1, \$3.69; 7, \$4.00; 1, \$4.50; 9, \$5.00; 2, \$6.00; 1, \$6.92; total, 36; average per week, \$3.93.

Housework. 6, \$2.00; 1, \$2.30; 11, \$2.50; 39, \$3.00; 1, \$3.23; 36, \$3.50; 1, \$3.69; 103, \$4.00; 15, \$4.50; 47, \$5.00; 3, \$6.00; 3, \$7.00; total, 266; average per week, \$3.93.

Ironing belts. 1, \$5.00.

FEMALES — Con.

Kitchen work. 1, \$2.00; 3, \$3.00; 1, \$3.23; 6, \$3.50; 1, \$3.69; 34, \$4.00; 18, \$4.50; 23, \$5.00; 1, \$5.50; 2, \$6.00; 1, \$7.00; 1, \$9.00; total, 92; average per week, \$4.40. — 2, \$13.00 (*month*).

Labellers. 1, \$3.00; 3, \$4.00; 1, \$4.50; 1, \$5.00; 6, \$6.00; total, 12; average per week, \$5.04.

Laboratory work. 1, \$4.00; 4, \$5.00; total, 5; average per week, \$4.80.

Lady's maids. 1, \$8.00.

Laundresses. 1, \$3.00; 2, \$3.69; 3, \$4.00; 2, \$4.50; 1, \$4.62; 8, \$5.00; 4, \$5.08; 2, \$6.00; 1, \$7.50; total, 24; average per week, \$4.83. — 1, \$20.00 (*month*).

Laurel wreath makers. 1, \$4.00.

Leather workers. 1, \$6.00.

Lunch counter girls. 1, \$6.00.

Mailing calendars. 1, \$7.00.

Mailing, n. s. 1, \$4.00.

Markers (stock room). 1, \$4.00.

Nursemaids. 1, \$2.50; 3, \$3.00; 1, \$3.46; 6, \$4.00; 1, \$4.50; 2, \$5.00; 1, \$9.00; total, 15; average per week, \$4.16.

Nurses. 2, \$2.50; 1, \$6.00; 1, \$10.00; total, 4; average per week, \$5.25.

Office work. 4, \$3.50; 4, \$4.00; 1, \$4.50; 8, \$5.00; 8, \$6.00; 1, \$7.00; 1, \$8.00; total, 27; average per week, \$5.09. — 1, \$12.00 (*month*).

Pantry girls. 1, \$2.77; 1, \$3.00; 3, \$3.23; 5, \$4.00; 1, \$4.15; 1, \$4.50; 3, \$5.00; 1, \$5.77; 1, \$6.00; total, 17; average per week, \$4.17. — 1, \$3.00 (*week*). — 2, \$12.00 (*month*); 2, \$13.00 (*month*); \$14.00 (*month*); 1, \$16.00 (*month*); total, 7; average, \$13.43 (*month*).

Paper flower makers. 1, \$2.50.

Parlor maids. 3, \$4.00.

Picking over nuts. 1, \$3.00; 1, \$4.00; total, 2; average per week, \$3.50.

Plate press feeders. 1, \$4.00.

Power machine work. 1, \$6.00.

Press clipping. 2, \$4.00; 2, \$4.50; 1, \$6.00; total, 5; average per week, \$4.60.

Publishers (light work). 1, \$3.50.

Restaurant work. 1, \$3.00; 1, \$4.00; 2, \$5.00; total, 4; average per week, \$4.25.

Saleswomen. 1, \$3.50; 2, \$4.00; 8, \$5.00; 13, \$6.00; 1, \$7.00; 2, \$8.00; total, 27; average per week, \$5.65.

Scrubwomen. 1, \$3.00; 1, \$3.69; 1, \$4.50; 2, \$5.00; 2, \$6.00; 1, \$9.00; total, 8; average per week, \$5.27. — 1, \$15.00 (*month*); 2, \$16.00 (*month*); total, 3; average, \$15.67 (*month*).

Seamstresses. 1, \$2.30; 1, \$3.00; 1, \$6.00; 2, \$7.00; total, 5; average per week, \$5.06. — 1, \$3.00 (*week*).

Second girls. 4, \$3.00; 1, \$3.50; 3, \$4.00; 3, \$4.50; 3, \$5.00; total, 14; average per week, \$4.00. — 1, \$4.00 (*week*).

Shirt makers. 1, \$6.00.

Shop work. 1, \$4.00; 1, \$5.00; 1, \$6.00; total, 3; average per week, \$5.00.

Space work. 1, \$3.50. — 2, \$16.00 (*month*).

Stenographers. 3, \$5.00; 6, \$6.00; 2, \$7.00; 6, \$8.00; 4, \$10.00; total, 21; average per week, \$7.29.

Stitchers (leather). 1, \$6.00; 1, \$7.00; total, 2; average per week, \$6.50.

Stitchers, n. s. 3, \$5.00; 4, \$6.00; 4, \$7.00; total, 11; average per week, \$6.09.

Store work. 1, \$4.00; 1, \$4.50; total, 2; average per week, \$4.25.

Stuffing dates. 1, \$4.50.

TABLE IV. — *Occupations and Wages, by Sex* — Concluded.

FEMALES — Con.		FEMALES — Con.	
Switchboard operators.	1, \$5.00.	\$8.00; total, 75; average per week, \$4.53. — 2,	
Table girls.	2, \$3.50; 2, \$3.69; 5, \$4.00; 4,	\$3.00 (<i>wkb</i>).	
	\$5.00; total, 13; average per week, \$4.18.	Ward maids.	1, \$5.00; 1, \$7.00; total, 2; average per week, \$6.00.
Telegraph operators.	1, \$5.00.	Washerwomen.	1, \$6.00; 3, \$7.20; 1, \$9.00; total, 5; average per week, \$7.32.
Trouser makers.	1, \$10.00.	Writers.	1, \$3.50; 2, \$5.00; total, 3; average per week, 1.50.
Tying and banding stationery.	1, \$4.00.		
Waitresses.	8, \$3.00; 2, \$3.46; 6, \$3.50; 2,		
	\$3.69; 11, \$4.00; 5, \$4.50; 33, \$5.00; 7, \$6.00; 1,		

The 1,493 males found places in 166 branches of occupation and the 1,265 females in 106 branches of occupation.

As regards the time unemployed, it is stated by the registry clerks in the office that there is an indisposition on the part of applicants to give a long period of unemployment, as they seem to fear that if they state that they have been out of work for a long period of time it will interfere with their getting a situation. For this reason, it is the opinion of the registry clerks that the applicants minimize the extent of unemployment and in that way magnify the period of employment. Nevertheless, the Bureau can present only those figures which were given by the applicants, subject, of course, to the qualification just stated.

TABLE V. — *Employment and Unemployment.*

INDUSTRY CLASSES.	MALES		FEMALES	
	AVERAGE MONTHS —		AVERAGE MONTHS —	
	Employed	Unemployed	Employed	Unemployed
Professional, ...	11.33	0.67	—	—
Domestic service, ...	10.10	1.90	9.49	2.51
Personal service, ...	10.96	1.04	9.54	2.46
Trade, ...	10.15	1.85	7.29	4.71
Transportation, ...	10.33	1.67	—	—
Agriculture, ...	10.80	1.20	7.20	4.80
Fisheries, The	11.00	1.00	10.00	2.00
Manufactures, ...	10.64	1.36	8.08	3.92
Laborers, ...	10.13	1.87	—	—
Apprentices, ...	9.78	2.22	11.00	1.00
Unskilled workmen, ...	9.83	2.17	7.56	4.44

The preceding table shows by industry classes, with specification by sex, the average number of months of employment and unemployment reported by persons who secured positions. It will be noted that the months of unemployment range from a minimum of two-thirds of a month in the case of professional service to two and one-fifth months in the case of apprentices as for males; as regards females, from one month in the case of apprentices to four and four-fifths months in the case of those employed in agriculture and nearly the same number of months for those employed in trade. Generally speaking, the females who secured employment had been out of work for a much longer time than the males.

Employers in the various lines of industry call, as a rule, for skilled help; that is, they require some previous acquaintance with the business. In Table VI, which follows, the experience of persons obtaining situations is shown by industry classes, with specification as regards sex.

TABLE VI. — *Experience of Persons Obtaining Situations.*

INDUSTRY CLASSES.	MALES			FEMALES		
	Number Considered	Aggregate Experience	Average Experience	Number Considered	Aggregate Experience	Average Experience
		<i>Years Months</i>	<i>Years</i>		<i>Years Months</i>	<i>Years</i>
Professional, ...	5	39 6	7.90	—	—	—
Domestic service, ...	151	1,029	6.81	688	5,828	8.47
Personal service, ...	84	902 11	10.75	105	867 7	8.26
Trade, ...	213	623 5	2.92	104	243 4	2.34
Transportation, ...	104	808 2	8.88	—	—	—
Agriculture, ...	74	659 7	8.91	4	39 3	9.81
Fisheries, The, ...	2	13 6	6.75	—	—	—
Manufactures, ...	214	1,845	8.62	189	557 5	2.95
Laborers, ...	113	957 11	8.47	—	—	—
Apprentices, ...	27	27 8	1.02	1	3	3.00
Unskilled workmen, ...	36	264 10	7.36	14	68 3	4.88

There are 1,023 males and 1,105 females reported in the preceding table, or a total of 2,128. There were 34 males and 36 females who reported no experience, while for 436 males and 124 females the amount of experience was not stated.

For males the length of experience ranges from 1.02 years for apprentices to 10.75 years for those engaged in personal service; for females, from 2.34 years for those engaged in trade to 9.81 years for those employed in agricultural pursuits.

From December 3, 1906, to February 28, 1907, the number of employees' applications filed at the State Free Employment Office amounted to 17,375. For the first four days after the opening of the office (December 3 to 6) the number of applications was so great that it was impossible to make the records in such a way as to arrive at the industry classification. For this reason the industry classification is reckoned from December 7, 1906, to February 28, 1907, and covers 14,901 applications.

The number in each industry class and the percentage for each class of the total number are shown in Table VII.

TABLE VII. — *Industry Classes. Numbers and Percentages.*

INDUSTRY CLASSES.	Employees' Applications Filed	Percentages	INDUSTRY CLASSES.	Employees' Applications Filed	Percentages
Government service, ...	2	0.01	The Fisheries, ...	2	0.01
Professional service, ...	51	0.34	Manufactures, ...	3,317	22.26
Domestic service, ...	3,558	23.88	Mining, ...	9	0.06
Personal service, ...	1,508	10.12	Laborers (general or day), ...	1,273	8.54
Trade (mercantile service), ...	3,130	21.01	Apprentices, ...	639	4.29
Transportation service, ...	1,078	7.24			
Agriculture (farm laborers), ...	334	2.24	TOTALS, ...	14,901	100.00

It will be noted that those in domestic service numbered 3,558, or 23.88 per cent, this industry class being the largest as regards both number and percentage. The next largest class is manufactures, with a total of 3,317, or 22.26 per cent; the next largest, trade (mercantile service), with a total of 3,130, or 21.01 per cent. These three industry classes represent 10,005 out of the 14,901 persons considered, or 67.15 per cent.

In Table VIII are shown, by sex, the classified ages of the 14,901 persons who made applications for positions.

TABLE VIII. — *Employees by Sex and Age.*

SEX AND CLASSIFIED AGES.	Numbers	Percentages
Males: 14, 15 years, ...	265	1.78
16-20 years, ...	2,573	17.27
21 years and over, ...	8,115	54.46
Females: 14, 15 years, ...	65	0.43
16-20 years, ...	918	6.16
21 years and over, ...	2,965	19.90
TOTALS, ...	14,901	100.00
Both Sexes: 14, 15 years, ...	330	2.21
16-20 years, ...	3,491	23.43
21 years and over, ...	11,080	74.36
TOTALS, ...	14,901	100.00

This table shows that 265 males and 65 females under 16 years of age applied for work, a total for both sexes of 330. No children under 14 years of age have applied for positions.

Of the young persons from 16 to 20 years of age, or 3,491, 2,573 were males and 918 were females. Of the 11,080 adults, 8,115 were males and 2,965 were females. Of the whole number of applicants, 2.21 per cent were under 16 years of age; 23.43 per cent, from 16 to 20 years of age; and 74.36, 21 years of age and over.

LABOR LEGISLATION IN FOREIGN COUNTRIES.

In the following summary we present a review of some important labor legislation adopted in foreign countries during 1906, the date of passage of the act, when known, being given at the close of each statement:

Belgium.

Office for the Middle Classes.

Royal decree, creating an Office for the Middle Classes, which shall collect and prepare data relative to economic conditions of persons belonging to the middle classes; shall propose legislation for their benefit, and look after the enforcement of existing laws; and shall have charge of industrial, trade, and domestic training. January 15, 1906.

Commission on Electricity.

Royal decree creating a Commission on Electricity in connection with the Department of Industry and Labor provides for purely consultative commission to consider questions relating to electrical industry and submit propositions for legislation. March 8, 1906.

Labor Accidents.

Law approving the convention, relative to indemnity for labor accidents, concluded be-

tween Belgium and France, February 21, 1906. March 31, 1906.

(See France: Decree of June 12, 1906.)

Decorations for Personal and Domestic Servants.

Royal decree providing for decoration for personal and domestic servants in recognition of long and faithful service. June 15, 1906.

Technical Education.

Royal decree, instituting a Superior Council for Technical Education in connection with the Department of Industry and Labor. Council to be purely consultative, to consider matters relating to technical education and make recommendations for legislation. June 25, 1906.

Accident Insurance.

Ministerial decree establishing models for the organization of fixed premium accident insurance societies and communal accident insurance funds recognized under the law of

December 24, 1903. The decree is issued in execution of Article 17 of the general regulation of August 29, 1904, and abrogates the ministerial decrees of April 20 and November 10, 1905. July 18, 1906. (In effect January 1, 1907.)

Weekly Day of Rest.

Royal decree exempting glass works from certain provisions of the law of July 17, 1905, on Sunday rest. Authorizes employment of boys over 14 years of age, girls over 16 years, and women, in glass works, for more than six days a week, under certain conditions. July 28, 1906.

Accidents.

Royal decree prescribing special measures to be taken for the prevention of accidents to persons employed in loading, unloading, and repairing vessels. November 20, 1906.

Denmark.

Labor Accidents.

Law requiring physicians to report accidents which occur to farm or forest laborers and result in death or more than three days' disability. April 4, 1906.

France.

Insurance against Unemployment.

Decree of the Minister of Commerce fixing the rate of State subventions to funds for insurance against involuntary unemployment. Fixes rate at 16 per cent of the amount of benefits paid by local funds and 24 per cent of the amount paid by funds operating in three or more departments and having at least 1,000 active members. February 28, 1906.

Precautions against Fire in Industrial and Commercial Establishments.

Decree extending and elaborating the provisions of Article 16 of the decree of November 29, 1904. Prescribes proper exits and stairways in industrial and commercial establishments; restricts the use of certain inflammable gases for lighting or heating; regulates the placing of all lighting or heating apparatus and the care of inflammable liquids, rags, or waste; requires furnishing of fire extinguishers and the posting of orders as to manner of using them; and makes heads of enterprises responsible for violations of provisions. March 22, 1906.

Miners' Pensions.

Law concerning the participation of delegates for the safety of miners in miners' pension and aid funds. Prescribes the conditions under which delegates shall be entitled to pensions or aid. April 2, 1906.

Labor Accidents.

Law extending to all commercial enterprises the provisions of the law of April 9, 1898,

on labor accidents. April 12, 1906. (To take effect three months after promulgation of executive decree.)

Cheap Dwellings.

Law modifying and completing the law of November 30, 1894, on cheap dwellings. Provides for the establishment, in every department, of one or more patronage committees on cheap dwellings and social providence to encourage all manifestations of social providence, especially the building of healthful and moderate priced houses for wage-earners. Provides also for the organization and operation of a superior council for cheap dwellings and patronage committees; and for the regulation of co-operative building societies. Applicable also to Algeria. April 12, 1906.

Finance Law.

Article 59, relating to appeals, modifies Article 22 of the law of March 22, 1902, on labor accidents.

Article 65 provides that retirement pensions, amounting to not more than 360 francs (\$69.48) paid workingmen, or their widows or orphans, from funds especially established for the purpose, shall not be transferable or distrainable, and the surplus shall be transferable or distrainable only within the provisions of the law of January 12, 1895.

Article 66 relates to miners' pensions, and provides that miners' allowances provided for in Article 84 of the finance law of March 30, 1903, shall revert, in half, to the husband or wife surviving and not remarried. April 17, 1906.

Conditions of Labor Aboard Ships and in Shipbuilding Shops and Yards.

Article 18 provides that violations of provisions relative to conditions of labor and safety and health shall be punishable by suppression of or reduction in compensation for armament, according to the gravity of the offence, such punishment to be independent of fines imposed as result of prosecutions for violations of the laws.

Article 19 provides that shipbuilders shall not be entitled to the premiums provided for by the law if more than 10 per cent of their employees are foreigners; also that all regulations for safety and health to which French vessels are subject are applicable to foreign vessels in French ports. April 19, 1906.

Subventions to Unemployment Funds.

Decree modifying the decree of September 9, 1905, so as to provide that the amount of subventions to be paid each half year to unemployment funds shall be established by ministerial decree within the six months following the last day of the half year to which the subventions apply. April 20, 1906.

Maritime Credit Societies.

Law providing that maritime credit societies may be established by all or a part of the members of one or more trade unions, for the purpose, exclusively, of aiding or guaranteeing maritime operations by the unions or any of their members. The capital of a society must be raised entirely by its members. April 23, 1906.

Hours of Labor for Railway Employees.

Decree of the Minister of Public Works modifying the two decrees of November 4, 1899, on hours of labor and rest for railway engineers and firemen and for railway agents. May 9, 1906. (To take effect within six months.)

Labor Accidents.

Decree rendering executory the Franco-Belgian convention of February 21, 1906, concerning indemnity for damages resulting from labor accidents.

The convention provides that Belgian subjects, victims of labor accidents in France, shall be entitled to the indemnities and guarantees provided for French citizens by legislation in force on labor accidents; and, in like manner, French citizens, sustaining injuries while employed in Belgium, shall be entitled to all benefits of the Belgian labor accident law, and the convention shall remain in force for one year after either contracting party shall have given notice of desire to annul it. June 12, 1906.

Weekly Day of Rest.

Law providing for one compulsory day of rest a week for all employees in industrial or commercial establishments.¹ July 13, 1906.

Became operative in September under a regulation of public administration published August 31, 1906.

Ministry of Labor and Social Providence.

Decree creating the Ministry of Labor and Social Providence. Establishes a new ministry to take over the functions previously discharged by the sections of the Ministry of Commerce, Industry, and Labor, the Ministry of the Interior, and the Ministry of Public Works. October 23, 1906.

Germany.*Accident Insurance.*

Ordinance of German Federal Council abrogating such provisions of accident insurance law as relate to foreigners not having permanent residence in Germany, so as to allow Belgian subjects full participation in the benefits provided by the German accident insurance laws. February 22, 1906. (In effect March 1, 1906.)

Great Britain.*Workmen's Compensation Act.*

Repeals existing acts and consolidates and amends the law relating to compensation for injury by accident. The new act extends the scope of the law so as to apply to practically all workpeople, including seamen, clerks, shopmen, and domestic servants. Persons excluded are those not employed in manual labor whose yearly wage exceeds 250 pounds (\$1,216.50), outworkers, members of police force, members of the employer's family who live in his house, and persons casually employed at work not connected with the employer's trade or business. Only slight changes are made relative to the amount of compensation to be given, as fixed by the Act of 1897; the minimum period of incapacity entitling to weekly compensation is made one week, instead of two, and in case incapacity lasts two weeks or more the compensation is to be given from the date of the injury instead of beginning two weeks from that date, as under the old law. If the workman injured is under 21 years of age and receives wages of less than 20 shillings (\$4.87) a week, compensation may be allowed him up to the full amount of his wages, instead of 50 per cent, provided the weekly payment does not exceed 10 shillings (\$2.43). The list of persons entitled to compensation in the case of the death of a workman is extended to include an illegitimate child or grandchild or a parent or grandparent of an illegitimate person. In addition to compensation for injuries by accident, the new act provides for compensation for the contracting of trade diseases, the diseases specified being anthrax, ankylostomiasis, and poisoning by lead, mercury, phosphorus, or arsenic; and the Home Secretary is empowered to add other diseases to the list. The act is to take effect July 1, 1907, and, except for certain provision relative to medical referees, will not apply to accidents occurring before that date.

Trade Disputes Act.

Relates to "any dispute between employers and workmen, or between workmen and workmen, which is connected with the employment or non-employment or the terms of the employment, or with the conditions of labour, of any person, and the expression 'workmen' means all persons employed in trade or industry, whether or not in the employment of the employer with whom a trade dispute arises." Relative to conspiracy, the new act provides that "an act done in pursuance of an agreement or combination by two or more persons shall, if done in contemplation or furtherance of a trade dispute, not be actionable unless the act, if done without any such agreement or combination, would be actionable." The act further provides that a trade union may not be

¹ For full text of law see Massachusetts Labor Bulletin No. 44, December, 1906, pp. 509, 510.

sued in tort, but may be liable to be sued in contract; and legalizes peaceful picketing.

Education (Provision of Meals) Act.

Provides that children attending public elementary schools shall be provided with meals under the care of local school authorities in case such children are unable, because insufficiently fed, to take full advantage of the education offered them; requires parents to pay for meals so furnished their children unless the school authorities are satisfied of their inability to do so.

Merchant Shipping Act.

Provides that in 1909 load-line provisions now in force with regard to British ships shall become applicable also to foreign ships within any port in the United Kingdom; forbids any seaman being allowed to sign an agreement for service on a British ship, if engaged at any port in the British Islands or on the Continent of Europe between the River Elbe and Brest, unless such seaman knows enough of the English language to understand necessary orders given him, British subjects or inhabitants of a British protectorate, or Lascar not being affected by this prohibition; authorizes Board of Trade to make regulations to replace those contained in the Act of 1894 relative to emigrant ships; specifies provisions to be furnished every member of a crew engaged after June 1, 1907; and requires every British foreign-going ship of 1,000 tons or more to carry a duly certificated cook; provides for the relief and sending home of disabled seamen; insures the right of seamen to claim allotment of their wages; and makes provision for seamen to remit money home during a voyage; the act also provides that no pilotage certificate shall in future be granted to the master or mate of a ship unless he is a British subject, but certificates that were granted before June 1, 1906, may be renewed.

Notice of Accidents Act.

Provides that the owner, agent, or manager of any coal or metalliferous mine shall, in his annual report to the inspector of mines, report all accidents which have occurred in or about the mine during the year, by which any person was disabled for more than seven days, and shall furnish such details as the Secretary of State may require; this provision is to take effect in 1908. The act further provides that immediate notice shall be given the inspector of any fatal accident to a person employed in or about the mine, any accident causing serious personal injury to such person, or any fatal or serious accident caused by an explosion, by electricity, by overwinding, or by any other cause specified by the Secretary of State; in case death results from an accident already reported, notice of the death must be given. The act adds similar provisions in amendment

of the Factory and Workshop Act of 1901, and empowers the Secretary of State to require reports of certain accidents or occurrences when no personal injury results from them; it amends the Notice of Accidents Act of 1894 by making it applicable to accidents injuring any person so as to cause him to lose one whole day from his ordinary work. The act became operative January 1, 1907.

Italy.

Construction and Operation of Railroads.

The articles of this law which relate to labor prescribe the issuance of special tickets at reduced rates for workmen and require free transportation of tools and implements for the use of laborers in farming or fishing; also require railroad companies to enroll all regular employees in the Workmen's National Provident Sickness and Old-age Fund unless a private (approved) fund insuring similar benefits for employees is maintained by the company. June 30, 1906.

Enforcement of Labor Laws.

Law providing for a larger appropriation for the service of enforcing labor laws. July 19, 1906.

Netherlands.

Employment of Women and Children.

Royal decree regulating the employment of children under 16 years of age and women in brick making. Forbids such employment as would endanger the health or lives of the persons protected. January 20, 1906.

Nicaragua.

Mining Code.

Title XI (Arts. 143-153) relates to the hiring of workmen by time. Provides that written contract shall be made when workman is hired for more than one year, but contract shall not be binding for more than five years, and if no time is specified the services may cease at the option of either party, except that overseers, mechanics, or other operatives of the same class must give or receive at least 15 days' notice; provides penalties for violations of contract; requires employer to attend to the cure of any laborer injured or made sick on account of his service or an accident in the mine; provides that wages and salaries of employees shall have preference over all other obligations of an employer. February 17, 1906.

Norway.

Free Employment Offices.

Law providing for the establishment of free public employment offices in cities to be designated by the Crown. June 12, 1906.

Unemployment Funds.

Law providing that every Norwegian fund for insurance against unemployment, conform-

ing to regulations prescribed by the law, shall be reimbursed by the State to the extent of one-fourth the benefits paid to such of its members as are Norwegian citizens or have been residents of the country for five years. June 12, 1906. (In effect from October 1, 1906, to December 31, 1911.)

Rumania.

Employment of Women and Children.

Law regulating the employment of women and children in industrial establishments and mines. Makes 12 years the minimum age for the employment of children in factories, shops, and mines; forbids employment of boys under 15 and girls under 17 years of age in dangerous or unhealthful occupations or on night work; prescribes educational requirements for boys at work; regulates relations of employer and apprentice; prescribes weekly day of rest for women and children, and a pause of at least one hour in the course of each day's work. February 11, 1906.

Russia.

Hours of Labor and Sunday Labor.

An Imperial Ukase was promulgated on December 2, providing that all mills, factories, shops, and offices, including Government wine-shops, must not be opened for more than 12 hours a day, with the exception of certain days to be specially notified, and which are not to exceed 40 in the year, when the hours may be extended to 14 in the 24. Eating and drinking establishments where consumption takes place on the premises, such as hotels, restaurants, railway restaurants, and inns, may remain open 15 hours out of the 24. Public baths may also be open 15 hours, and peddlers of provisions, tobacco, and cigarettes, and other vendors in the public streets, may ply their trade for 15 hours a day.

Additional hours of work are permitted under exceptional circumstances and by special agreements between the employers and the employed for special wages.

Employees under 17 years of age in establishments where the working hours are not less than eight in a day must be allowed to attend school three hours daily.

Establishments in which the working hours exceed eight in a day must grant their hands two hours' rest for meals, and an interval of half-an-hour must be allowed in establishments working less than eight hours a day.

Trading and the employment of hands generally are altogether prohibited on Sundays and on the 12 great feast days, and also on those days which are specially notified. In villages where there is a marked preponderance of persons not belonging to the Orthodox Church, these days may be altered to suit local conditions, but on condition that work on the above mentioned days is not commenced be-

fore noon. All work is prohibited on Easter Day and Christmas Day.

Violation of the law may be punished by imprisonment not exceeding one month, or by a fine not exceeding 100 roubles (about \$50).

This law entered into effect six weeks after the date on which the authorities received a copy thereof. December 2, 1906.

Spain.

Employment for Working Classes.

Royal order authorizing appropriation for urgent public works to give employment to the working class. January 2, 1906.

Public Granaries.

Law providing that the Minister of Internal Development (*Ministro de Fomento*) take charge of all services relating to public granaries. January 23, 1906.

Labor Inspection.

Royal decree regulating the service of labor inspection. Provides for the organization and operation of a department of labor inspection to enforce the law on labor accidents (January 30, 1900), the law regulating employment of women and children (March 13, 1900), the law on Sunday rest (March 1, 1904), and all other labor laws; the department to be attached to the *Instituto de Reformas Sociales*. March 1, 1906.

Statistics of Factories and Industries.

Royal order providing for the collection of statistics as to the annual production and exportation from factories and industries, the number of employees in each establishment, and the wages paid. April 10, 1906.

Schools of Arts and Industries.

Royal decree reorganizing the system of technical and industrial schools so as to increase efficiency. September 23, 1906.

Labor Inspectors.

Royal order regulating the appointment of labor inspectors. September 25, 1906.

Evening Schools.

Royal decree reorganizing evening schools. October 4, 1906.

Labor Inspection.

Royal order providing for the appointment of six district labor inspectors, so as to render the service of labor inspection operative on January 1, 1907. December 12, 1906.

Switzerland.

CANTON OF TICINO.

Conditions of Employment in Bakeries.

Decree provides for the health and safety of employees; requires payment of wages every

two weeks and in legal tender; requires accident insurance to be provided for employees; restricts hours of labor to 11 in 24 and provides for weekly day of rest; forbids night work, *i.e.*, work between 9 P.M. and 4 A.M., except

in cases of exigency; and provides fine of 50 francs (\$9.65) for violation of the law, the fine to be applicable to both employer and employee and to be doubled for a second offence. July 3, 1906.

CURRENT COMMENT ON SOCIAL QUESTIONS.

[The Bureau does not necessarily indorse any of the views or opinions printed under this heading, its object being rather to present diverse views on current questions, leaving the reader to draw his individual conclusions from the testimony or information supplied. The comments, as a rule, are presented in a condensed form; the titles of books, magazines, and newspapers, from which extracts are made, being given.]

Large versus Small Families.

A unique consequence of the slower rate of production of population in the State (Massachusetts) is that the babies who have arrived during the past five years have far better opportunities than their older brothers and sisters. They are so few in number that each gets proportionately much more care. — *New Haven Register*.

The lead taken by Massachusetts in this department of vital statistics (births) could be followed with value by other States. It would give us a basis of computation for estimates that would permit of provision for a population of ten, twenty, thirty years hence, approximately well known in advance. — *New York Commercial*.

The fact is, babies are costing more and more in every civilized country. Medical attendance, living apartments, sanitation, milk bills drag heavily on persons of small means, and often the little stranger is not counted a blessing, but the cause of an almost hopeless expense. Hence the little stranger is discouraged. — *Boston Globe*.

The superintendent of compulsory education in Cook County (Illinois) says there are 18,000 desertions of wives every year in Chicago. The predominant causes, he thinks, are "large families, long hours, small salaries, and earnest but futile efforts on the part of the husband to sustain the family in a moderate condition of comfort." "I am not an advocate of race suicide," he added, "but in the poor quarters there are too many births. We are now suffering from too much prosperity for the rich and too much posterity for the poor." — *Boston Herald*.

I would like to conduct any one favoring large families through the district where race suicide is not heard of, where it is a "sin" to even murmur against the burdens of a large family, and they would then be convinced of the error of their ideas and that it is not quan-

tity but quality that would make every nation better. They would see the slim chances for happiness under such conditions. They would see the cause of so many charitable institutions — and do they believe these inmates happy? They would see the principal cause for crime; for degradations of all kinds. And I know whereof I speak, for I have lived among these large families all my life. — *Correspondent in Boston Globe*.

James J. Hill virtually contends that population, especially in urban centres, is increasing faster than the means of subsistence are being developed in the great agricultural regions from which the living supplies of the country are drawn. Mr. Roosevelt exhorts the people to "increase and multiply;" Mr. Hill warns them to look well to the increase and multiplication of the sources of food. — *Boston Globe*.

Food, shelter, clothes, care, and doctoring for a family constitute what is well called a "hard proposition" for the average parents; but when the cost of education is added, the load is greatly increased. In the "good old days" of large families, the "little red school-house" in the country, the academy in the village, and the public schools in the city answered very well the purposes of primary education. But all this is changed now. From \$600 to \$1,500 a year is the cost of instruction and living in good private and fitting schools, and colleges are dominated more and more by an expensive scale of living. Thanks to endowments and to the enlightened policy of trustees and faculties in our leading universities, the higher education has not yet become the exclusive privilege of the rich. But with all these helps the cost of a course has outgrown the means of the man of average income with a large family to support.

If the advocates of quantity rather than quality in children, the dogmatists who hold that the greatness of a nation consists in its

mere numbers, will take the trouble to study the causes that are reducing the birth-rate in American cities, they will have a better understanding of the question. — *Boston Herald*.

Our domestic experiences apparently indicate that this diminution in birth-rate is by no means confined to any class or race, though it is, of course, much more marked in certain sections and communities than it is in others. The birth-rate among the Irish in Ireland is exceedingly large when compared with that of other European people. But the birth-rate among those of Irish birth or of Irish descent living in the United States is quite different from experiences in the "old country," and approximates much more nearly to the conditions found among the descendants of those who settled on this continent a century or two ago. — *Boston Herald*.

The better the development of the person, the less we run to seed. The most fecund classes are the lowest. The decrease in the birth-rate following the increased individual value of woman is a normal biological law. Nature does not feel that the children of the brainy woman are of such poor stuff that they should not be perpetuated. But as fast as women become real people they do not bring forth so much food for cannon, but the kind of citizen that will not use cannon. We want not more people but better people. — *Mrs. Charlotte Perkins Gilman, in Boston Post*.

One of the greatest delusions concerning the family is that of race suicide. We have been reminded that every country of Europe, with one exception, records a fall in the birth-rate between 1890 and 1900. What is true of Europe is true of America. We will admit that these figures may reveal some facts which are to be regretted. So far as this decline in the birth-rate depends upon sensuality, upon love of ease and luxury, it is a serious evil which may well cause anxiety, but so far as it is the result of the desire for fewer but better-born children it is a positive social good. What we want is not a larger population, but men and women well developed, well equipped morally and intellectually. It will be a part of the moral code of the future that families have fewer children and care better for the development of their life. — *Rev. Chauncey J. Hawkins, in Boston Globe*.

The low birth-rate was one of the earliest subjects of our attention. We pointed to the small birth-rate of the so-called native stock of New England and to its evident prevalence in the West, where the New England settler was most found, that this was not due to a declining fecundity of our women so much as to selfishness and a growing unwillingness to meet the responsibilities of a family and change in economic conditions that made large families undesirable, not forgetting, however, to recognize that quality as well as number is an important element in the problem. — *Rev. Samuel W.*

Dike, of the National League for the Protection of the Family.

The prevailing love of comfort was largely responsible for this (the reduced birth-rate), and the clergy must learn themselves to teach others to live the simpler and heartier life which their forefathers lived. — *The Bishop of London, at St. Paul's Cathedral*.

Increased sobriety, better homes, better food, more regular work, a reversion to rural or semi-rural life, will correct a not yet too rapid decline in birth-rate, and greater comfort for the mother and increased care for the babies will rectify what is deplorable and, better still, avert "the massacre of the innocents" that now goes on in industrial centres, where the infant mortality, because women are doing men's work, is two, three, and four times more than in either the poor rural or the rich town districts. It is better to rear safely and surely the present limited arrivals that we have than to increase indiscriminately the "desolating flood of babies" irrespective of the burden on mothers and the means available for their subsequent maintenance. — *Hon. John Burns, Member British Cabinet*.

Those fathers who by industry and frugality have acquired a moderate property are usually conservative. The desire to give their children advantages which they themselves never enjoyed impels them to keep the size of their families small. There are others who, spurred by social ambition, find their income continually smaller than their needs. They wish to rise to the class which is financially above them, and every energy is bent to accomplish this end. Whatever does not favor this pursuit is put aside. To such, children are an impediment. Others have reached that social or financial eminence where they desire to found a family but that the children may occupy an exalted position. It is felt that the property must not be too much subdivided. Among this class large families are not the rule. The professional classes are not usually able to enter upon their chosen calling until close upon the 25th year, and many years must elapse after this before they are in a position to marry. As a result of this postponement of marriage, the number of children is usually small. — *Prof. William B. Bailey, of Yale University*.

If men honestly desire to prevent the cause of race decadence let them examine the accounts of food adulteration and learn that from the effect of impure milk alone in one city 5,600 babies died in a single year. Let them examine the water supply, so impregnated with disease that in some cities there is continual epidemic of typhoid fever and diphtheria. Let them examine the plots of our great cities, and find city after city with no play places for children except the streets, alleys, and lanes. Let them examine the school buildings, many of them badly lighted, unsanitary, and without yards. . . . Let them follow the children who survive

all these ills of early childhood until they enter the sweatshops and factories, and behold there the maimed, dwarfed, and blighted little ones. . . . Then if these mentors of women's clubs and mothers' meetings do not find sufficient cause for race degeneracy where they have power to control conditions, let them turn to lecturing women. It is infinitely more important that a child shall be well born and well reared than that more children shall be born. It is better that one well-born child shall live than that two shall be born and one die in infancy. That which is desirable is not that the greatest possible number of children should be born into the world; the need is for more intelligent motherhood and fatherhood and for better-born and better-educated children. — *Anna Howard Shaw, in "Progress."*

Does not human misery decrease with a low birth-rate? Is that not an asset worth considering? Is there not a tinge of selfishness and incompetency in the cry for large families? Examine carefully the motives of those who advocate them most. — *Correspondent in New York Times.*

After a quarter of a century of this practice (race suicide) the total number of children born annually in Great Britain is less than four-fifths of what it would be if no such interference had taken place. Nor is the practice confined to Great Britain. The statistics indicate that New South Wales and Victoria have already carried it further than we in England have, whilst New Zealand is not far behind. Registration in the United States is very imperfect, but it is clear that the American-born inhabitants of New England and perhaps throughout the whole of the Northern States are rapidly following suit. The same phenomenon is clearly to be traced in the German Empire, especially in Saxony, Hamburg, and Berlin, but the German rural districts are as yet unaffected. The Roman Catholic population of Ireland (and of the British cities), as well as those of Canada and Austria, appear to be still almost untouched, but those of Belgium, Bavaria, and Italy are beginning to follow in the footsteps of France. The fact that almost every country which has accurate registration is showing a declining birth-rate indicates — though, of course, it does not prove — that the practice is becoming ubiquitous. — *Sidney Webb, in The Popular Science Monthly.*

There has been a fall in the marriage rate in Great Britain of 19 per cent in 35 years. This means that not only are the young British men unwilling to assume the expense of a household, but that with rising standards of living and comparative hard times men who have once undertaken the burden become much more reluctant to resume it. — *New York Times.*

The abnormal birth rate of the past was due to the inability of the Negro to appreciate his responsibilities as a free man. He was thrown from a state of total irresponsibility into a

state in which he must direct his entire welfare. Such a transformation was never accomplished without great injury to the individual changed. Professor Ross, a noted sociologist, stated in a recent address that the responsibilities of a democracy tend to cause the individual to limit the size of the family. Similarly, the rapid decrease in the birth rate of the colored people is in all probability more due to their increased appreciation of their responsibilities than to an increase of competition. This keener appreciation of responsibilities is a sign of progress, and the decrease in the birth-rate makes more progress possible. The increase of the colored people in the past has outstripped all agencies for the elevation of the race. They were four million people in 1860. Since that time the schools have educated over four million of them, but they have doubled their number, and there are now four million more to be educated out of the ranks of the illiterate. The decreasing birth rate, then, is no cause for alarm, but rather a promise of a better day. — *The Southern Workman.*

Race suicide, as we understand the term, means the wilful restriction of child-bearing. In this sense it is an invariable accompaniment of the commercial eras of all peoples and is always most noticeable in the large trade centres. . . . In an ideal community only those would marry from whose union healthy offspring might be expected, and only those who could reasonably hope to support their progeny would bring children into the world. But, unfortunately, marriages are made indiscriminately, and children are brought into the world in inverse ratio to the ability of their parents to support them. — *Washington Times.*

The writer recalls a line of little barefooted brothers, in faded blue jeans, trailing their way to the suburban onion patch night and morning. They looked like a section of an orphan asylum broken loose. There was scarcely a year's difference in their respective ages. Few attempted to keep the run of them, yet to-day, with honors and titles of well-earned distinction, their names are seen constantly in the public prints. . . . The greatest gift to earth is human life, and the most cherished privilege of each should be that of bestowing life and of shaping the inheritance and destiny of his own flesh and blood. Incipient degeneracy marks those who would spurn or curtail this offer, and it soon becomes an hereditary taint. Since half our race succumbs in infancy, the union which fails to be blessed with four welcome arrivals is marked for blight and extinction on the family tree. . . . Marriage will never be a failure nor the State become imperiled as long as the moral, mental, and physical elements are sound. The "quality" critic adds a fourth, the financial microbe which so often consumes the moral. A colony composed of the morally, mentally, and physically sound would soon become an earthly paradise in

which poverty and divorce would be unknown. The danger line is crossed in every household when human existence is placed in one scale and a bank balance in the other. — *George B. Starkweather, in Washington Evening Star.*

Shall I tell you one cause of the decline in the marriage market? The masculine fear of the future. Men are too uncertain of their positions to assume responsibilities unless there is something to fall back upon in an emergency, some little income. I have it from the mouths of several young men with strong domestic tendencies and no flattering prospects, and because they cannot marry they keep away from the other sex and secure the reputation of being stingy and unsociable.

There are varying opinions on the subject, but the one that appeals to me suggests a remedy in equalizing wages. It is no secret that few women can compete with men in earning capacity, though their services are preferred in many places. Equalize the wages of the sexes and I fear the men would win out. Result — marriage and families. Women would be provided for in a manner they scorn at present. — *Correspondent in Boston Traveler.*

It is, perhaps, inevitable that the over strenuous pursuit of individual advantage should divert men's minds from the noble ideal of duty to the State. It is the sense of this duty which gives especial dignity to parentage. What gift that we can offer to the State equals that of an

intelligent and high-toned family? And how long would the State persevere if this object should be lost from sight in the general plan of social life? The value of a single incorruptible man or woman to the community is far beyond that of any accumulation of millions. — *Mrs. Julia Ward Howe, in Boston American.*

There are many reasons for the present lack of children — high living, fast living, overextension, the too strenuous life. . . . One of the greatest causes for the desire to live without children is that the women of to-day have a great love of luxury. They are more selfish than formerly and they don't want any interference with their personal pleasure. There is another reason for smaller families than in the olden days, which is outside of any personal desire on the part of the parents to shirk the obligations of parenthood. This is the increased expense of living. People also have a higher ideal and a greater ambition for their children. They feel that while they can do what they want for two children they could not for three or four. They want to educate their children; to send them to college; to give them advantages which perhaps they missed. In my own opinion, however, every couple who can have any children can have one or two and take care of them. For them not to show a love of indolence and a gratification of selfish desires. — *Gertrude T. Bodfish, M.D., in Boston American.*

TRADE UNION NOTES.

[This section is intended to record, as far as possible, matters of current information regarding trade unions, particularly those of Massachusetts, and those internationals with which the local unions are affiliated.]

Conventions of International Unions.

Prior to July 1, 1907, the following conventions of International Unions, affiliated with the American Federation of Labor, are to be held in the cities and on the dates indicated:

May 1, New York City, Cloth Hat and Cap Makers.

May —, New York City, National Print Cutters.

May —, Columbus, Ohio, Tin Plate Workers' International Association.

May 7, Toledo, Ohio, Iron, Steel, and Tin Workers.

May 13, Minneapolis, Minn., Railroad Telegraphers.

May 13, New York City, Hatters.

May 20, Cleveland, Ohio, Musicians.

May 20, Detroit, Mich., Switchmen's Union.

May 29, Washington, D. C., Steel Plate Transferrers.

June 3, Newark, N. J., Tip Printers.

June 3, Baltimore, Ladies' Garment Workers.

June 3, Boston, Marble Workers.

June 3, Toledo, Ohio, Steam, Hot Water, and Power Pipe Fitters. .

June 10, —, Ceramic, Mosaic, and Encaustic Tile Layers.

June 17, New York City, Printing Pressmen and Assistants.

June 28, Chicago, Pavers, and Rammermen. — *American Federationist, February, 1907.*

Wages of New England Textile Workers.

In a letter, published in the *American Federationist* in February, 1907, Mr. John Golden, President of the United Textile Workers of America, wrote to the effect that the wage situation throughout New England, as far as the textile workers were concerned, was about

cleared up, except in Lowell, where the operatives had received a five per cent increase in wages, following their request for an increase of ten per cent. No serious trouble was anticipated in that locality. Approximately 200,000 textile workers in New England had their wages increased, some five, some seven, and a still larger number ten per cent during the last four weeks of 1906. In Fall River, where the recent movement for increased wages originated, the members of the local textile unions had received increases aggregating 25 per cent since the great strike of two years prior.

American Federation of Labor — Convention.

At the Twenty-sixth Annual Convention of the American Federation of Labor, held at Minneapolis, Minn., November 12-24, 1906, over 300 delegates were reported present. President Gompers, in an editorial in the *American Federationist* for January, 1907, described the convention "as the greatest and most potential convention ever held in the history of Labor in America."

In his report to the convention President Gompers stated that during the fiscal year ending September 30, 1906, charters had been issued by the Federation to six international unions, four State federations, 53 city central bodies, 167 local trade unions and 87 federal labor unions — a total of 317 charters. The total number of labor bodies affiliated with the Federation on September 30, 1906, consisted of 119 international unions (embracing approximately 27,500 local unions), 36 State federations, 538 central labor bodies, and 759 local trade and federal labor unions.

That portion of the president's report which dealt with "Labor's Political Campaign" was referred to a committee which, after consideration thereof, made a full report thereon to the convention. The convention itself devoted a

session of more than four hours to a discussion of the committee's report and finally adopted it by an overwhelming vote, thereby approving the political action already taken and the plans for continued action along similar political lines.

A "Declaration of Principles," or economic program, drawn up by the resolutions committee was also adopted.¹

In addition to measures considered in the political and economic programs, other resolutions were adopted calling for the extension of the Chinese exclusion law to include Korean and Japanese coolie laborers; for the regulation of labor of convicts in order to avoid competition with free labor; for an income and inheritance tax; for the election by the people of all the judges; for a thorough education of the workers in all lines of learning, including technology, economics and the philosophy of the true trade union movement; and for a Federation exhibit, including that of trade union labels, at the Jamestown exposition in 1907.

The annual report of Secretary Morrison showed that the Federation was stronger than ever before, both as to its financial condition and membership. During the last fiscal year the receipts were \$217,815.18 and the expenditures were \$218,540.04, and at the close of the fiscal year there remained a balance in the treasury of \$113,540.60. Of the expenditures, the sum of \$52,619.12 was paid to the International Typographical Union to assist that organization in its general movement for an eight-hour day. During the year there were 887 strikes recorded in which 91,530 workmen were involved, of whom 68,812 were benefited and 11,183 were not benefited. The total cost of these strikes to the unions concerned was given as \$3,982,865.

The next convention will be held at Norfolk, Va., November 11, 1907.

INDUSTRIAL AGREEMENTS.

Boston.

SHEET METAL WORKERS.

Sheet Metal Workers Union No. 17 and Employers.

Early in the Spring of 1906, Sheet Metal Workers Union No. 17 made demands upon employers for an increase in the minimum daily wage from \$3 to \$3.60, to go into effect May 1. Agreements were made with many employers, with the exception of the five firms composing the Metal Ceiling Contractors' Association. These firms made objections prin-

cipally to Paragraphs 1 and 2 of Article 4 of the proposed agreement. A strike was declared on the five firms on August 4. On September 12, the demands of the union were acceded to and the following agreement signed.

1. This contract shall go into effect when signed.

2. Eight hours shall constitute a day's work. Hours of labor shall be from 8 A.M. to 5 P.M.

There shall be no limitation as to amount of work a man shall perform during the working day.

Any labor performed before 8 A.M. or after

¹ See Massachusetts Labor Bulletin No. 45, January, 1907, p. 33.

5 P.M. shall be paid for at double the regular rate of wages, and all labor performed on Sundays or legal holidays shall be paid for at the same rate. Legal holidays shall be Washington's Birthday, Patriots' Day, Decoration Day, 17th of June, Fourth of July, Labor Day, Thanksgiving, and Christmas. In no case shall a member of the union be required to work on Labor Day excepting in case of extreme emergency.

3. The minimum rate of wages for journey-men shall be 45 cents an hour.

The employer shall be allowed one apprentice, who shall serve three years, and he shall be at all times under control of his employer until the expiration of his apprenticeship.

4. All the metal ceiling erectors employed by the signer of this agreement shall be members of Amalgamated Sheet Metal Workers International Alliance carrying a paid-up working card of their respective locals.

This agreement shall not deny any workman the right of employment provided said workman shall become a party to this agreement.

When on demand the union cannot supply men enough to do the work, the employers shall be allowed to engage men who, if competent to pass the examination, shall become parties to this agreement. In cases of this kind said firm shall notify business representative of the union and give him names of men hired, to whom he shall issue a working permit.

5. All journeymen working out of town shall receive, from employer, all railroad fares, board, and necessary expenses, and they shall also receive regular wages for time consumed in travel. All extra car fares will be paid by employer.

6. All workmen shall have the right to work for any employer they may desire, provided said employer shall comply with the provisions of this agreement.

Employees must, whenever employed, exercise diligence in doing a fair day's work. On evidence of time wilfully lost reduction in their pay may be made for such loss of time, and where material is destroyed by the neglect or incompetency of a workman he shall pay such loss to his employer from his wages.

All workmen having to go to the shop for their pay from outside jobs shall leave their work in time to get to the shop by quitting time.

7. This firm shall not subcontract any work to a member of said union.

8. To avoid conflict with the central body with which this union is affiliated, helpers employed by said firm shall be members of the helpers' union.

Helpers shall do helpers' work only.

On all jobs only one helper shall be allowed to each regular journeyman.

9. All differences under this agreement are to be settled by arbitration. No strike or lock-out shall be ordered by either party hereto as

against the other, for any grievance or violation of this agreement, it being understood, however, that any sympathetic strike in which the union is obliged to take part on account of its affiliation with any central body shall not be considered a violation of this agreement.

Any trouble with any firm outside of the Penn. Metal Ceiling & Roofing Company not to affect Penn. Metal Ceiling & Roofing Company.

10. It is hereby agreed that members of Sheet Metal Workers Union No. 17 shall erect all wood used in connection with ceiling work.

11. The arbitration committee shall be mutually decided upon, but the employer involved and the business agent of the union shall not be eligible to serve on the same committee; both, however, may be present.

12. This agreement shall remain in effect two years from August 31, 1906, and five months' notice of a change in same must be given by either party to this contract before expiration of time stated.

Chelmsford.

QUARRY WORKERS.

The Quarry Workers International Union of North America, and employers.

1. Eight hours shall constitute a day's work.

2. Blacksmiths, brakemen, section men, lumpers, and carpenters shall receive the same pay for eight hours' work as they have been receiving for nine.

3. Head derrickmen shall receive 25 cents an hour.

4. Second-class derrickmen shall receive 20 cents an hour.

5. Tripod-drill runners shall receive 25 cents an hour.

6. Bar-drill runners shall receive 28 cents an hour.

7. Men using explosives shall receive 28 cents an hour, and none but experienced men shall be allowed to use powder or dynamite. Men shall be given sufficient time to get to a place of safety before either fuse or battery is touched off.

8. Air plug-drill runners shall receive the same price for eight hours as they have been receiving for nine.

9. Laborers shall receive 20 cents an hour.

10. Air hoisting engineers shall receive 25 cents an hour.

11. Steam hoisting engineers that do their own firing shall receive 30 cents an hour and full time, rain or shine.

12. Overtime shall be left optional with the workers.

13. The scale of wages mentioned in all above clauses must be observed as the minimum scale.

14. In case of an advance being demanded, branches must give employers not less than three months' notice, and if employers desire

any change they must give the branch three months' notice. Should any branch at any time have any grievance against the employers, or the employers against the branch, they will at all times use their utmost endeavor to come to an equitable agreement by correspondence, interviews, or conferences; should these means fail they must resort to arbitration. The employees then will select one man and the employers another, these two to select a third, and their decision shall be final.

15. This agreement shall commence July 1, 1906, and shall expire May 1, 1909, and unless changed shall continue in force from year to year.

Montague.

PAPER MILL EMPLOYEES.

International Paper Co. and International Brotherhood of Pulp, Sulphite, and Paper Mill Workers.

The following order was submitted by the International Paper Co. to the International Brotherhood of Pulp, Sulphite, and Paper Mill Workers in August, 1906, to take effect September 3 in all the mills of the International Paper Co. The new schedule provides for three shifts of eight hours, six days a week, for the tour men and the hours of work for the day workers were reduced from 10 to nine hours. About 93 tour workers and 116 day workers are affected in Massachusetts, these being employed in the mill at Montague.

1. The International Paper Company declares itself as favoring the system of three shifts for tour workers in paper mills having sufficient raw material to supply the paper machines running not less than six full days each week and equipped with the modern machinery necessary to operate the system with profit.

2. We propose to put the three tour system into such plants starting with one paper mill upon the first Monday of September, 1906, and continuing with one mill upon the first Monday of each month thereafter.

3. Upon June 1, 1907, if any paper mills remain upon the two tour system which can operate upon the three tour system with profit, such mills shall be changed to the system of three tours within a reasonable time thereafter.

4. Under the system of three shifts for tour workers, employees shall work eight consecutive hours upon each shift; shift shall alternate in sequence weekly, the change in tour coming at 7 A.M., 3 P.M., and 11 P.M.

5. The usual running time of the paper machines will be from 7 A.M. Monday until 7 A.M. Sunday—a period of six days of 24 hours each.

In case of accident or because of some adverse condition beyond our control, paper machines may be run six and one-half days a week, the starting time being 6 P.M. Sunday;

such running to be decided upon by conference with the New York office.

6. The hours of operating pulp mills shall be determined by the pulp situation. Pulp mills are to be run six and one-half days a week when their output is needed, and when mutually agreeable to superintendent and employees pulp mills may be run the full seven days of the week.

7. All employees to be paid weekly at established rates an hour for the number of hours worked, straight time to be paid for overtime, and for work between 7 A.M. Sunday and 6 A.M. Monday. The new hourly rate of each employee is to be determined by multiplying his present rate by 65 (his present week), and dividing the result by 48 (his new week), same carried into three decimals.

8. There shall be no strikes or lockouts. All matters of dispute shall be adjusted in conference; all parts of the mill during any conference to be kept running to their full capacity.

9. The paper company reserves absolutely the right to discharge any employee because of insufficient service, refusal to obey the instruction of a superior, wilful disregard of the company's interests, or the doing away with a position which any man may fill.

10. It is the policy of the company to operate its plants as economically as possible. In order to partially offset the great increase in cost due to the three tours, an effort will be made in each department of each mill to reduce the crew to the most reasonable basis. We will expect our employees to lend their co-operation in accomplishing these results. When any reorganization occurs employees will be expected to perform to the best of their ability any new and different duties assigned to them. It is expected that each employee shall devote himself exclusively to his work while in the mill.

11. We propose to adopt for all mills upon the first Monday of September, 1906, a nine-hour day for day workers, men to receive the same wages for the nine hours as they are now receiving for 10 hours, the hours being from 7 A.M. to 12 M., and from 1 P.M. to 5 P.M., six days each week.

Canada.

CARMEN.

Rules and Rates Governing the Service of Carmen in the Employ of the Canadian Northern Railway Company.

1. Shop rules and hours will govern all shops on the system. Carmen employed on running repairs shall not be considered shopmen. Carmen required to furnish and regularly use carpenters' tools will be classed as freight carpenters.

2. For shopmen, working hours shall be from 7 A.M. to 6 P.M., with one hour off for meals, between 12 M. and 1 P.M.

On Saturdays, from October 1 to March 31, from 7 A.M. to 5 P.M., with one hour off for meals, between 12 M. and 1 P.M. From April 1 to September 30, from 7 A.M. to 12 M., or to 5 P.M. where so agreed.

Overtime shall be paid at the rate of time and one-half from 6 P.M. to midnight, and at the rate of double time from midnight to 7 A.M. Sundays and the following public holidays, viz., New Year's Day, Good Friday, Victoria Day, Dominion Day, Labor Day, Thanksgiving, and Christmas shall be paid time and one-half from 7 A.M. to midnight, and double time from midnight to 7 A.M.

Regular night shopmen shall be paid straight time during working hours, the same being from 7 P.M. to 6 A.M., with one hour off for meals.

Shopmen called out after working hours between the hours of 7 P.M. and midnight shall receive not less than three hours' straight time; if called out between the hours of midnight and 7 A.M. shall receive not less than five hours' straight time.

3. All coach yard employees shall be classed as shopmen.

4. Unless otherwise agreed carmen working day and night relays shall work alternate weeks day and night.

5. Carmen six months in the company's service to receive the maximum rate when such is not more than two cents above the minimum. When the maximum rate calls for more than two cents, two cents shall be given after six months' service, and the balance after a further six months.

6. Carmen called out to wrecks will be paid straight time when traveling (Sundays and public holidays time and one-half) and time and one-half while working at the wreck. No time will be allowed while laid up for rest.

7. Carmen sent out on the road to work temporarily will be allowed straight time when traveling and overtime for time worked beyond the regular working hours.

One dollar a day will be allowed as traveling allowance. When traveling over 10 hours in any 24 hours, not more than 10 hours will be allowed for such traveling.

8. When reductions in force are made, men who have others dependent upon them for support shall be given preference of employment, seniority and proficiency to govern. Carmen laid off on reduction of force, if competent, shall, when force is increased, be given preference over new men. Promotion shall be governed by merit, ability, and seniority.

9. Carmen who are discharged or resign shall be given a certificate stating term of service and capacity in which employed.

10. Carmen who feel that they have been unfairly dealt with may appeal from their foreman to the master mechanic or the head of their department.

11. An advance of two cents above the schedule shall be paid at Edmonton. The rates shall be as follows:

	Cents per Hour.
Air brake cleaners and testers, ...	22½
Babblers, ...	22
Brass burnishers, ...	22
Coach carpenters, ...	29½
Locomotive carpenters, ...	28½
Freight carpenters, ...	22½ to 25½
Car inspectors, ...	22½
Car repairers and oilers, ...	20½
Heating and lamp men, ...	19
Coach cleaners, coal and ice men, ...	17½
Coach and locomotive painters, ...	28½
Freight painters, ...	21½
Leading painters, ...	31
Painters' helpers, ...	17½
Pipe fitters, ...	25½ to 30
Leading tinmith and pipe fitter, ...	32
Pipe fitters' helpers, ...	20
Tinmiths, ...	29
Leading truck repairer, ...	25
Truck repairer, ...	22
Upholsterers, ...	25 to 27

This schedule to remain in force from July 1, 1906, for one year, and from year to year thereafter unless 30 days' notice in writing is filed by either party concerned.

RECENT COURT DECISIONS RELATING TO LABOR.

Boycotts — Union Labor — Injunction. — In the recent case of Seattle Brewing & Malting Co. v. Hansen et al., 144 Fed. 1011, the United States Circuit Court, N. D. California, held that: (1) Where, pending a labor controversy between complainant and its employees, defendants as members of unincorporated labor organizations published notices, viz.: "Organized Labor and Friends: Don't drink scab beer!" — and then naming certain different kinds of beer and alleging the same to be "unfair," together with other signs directing or-

ganized labor and friends not to use "this beer," and advising that they should guard their health by refusing to drink "unfair beer," which was alleged to include beer manufactured by complainants, such notices amounted to a boycott which complainants were entitled to enjoin; (2) that a party knowing of an injunction, who violates it, is liable to punishment for contempt, whether there was any legal service of the injunction on him or not; (3) in a suit to restrain an alleged boycott against complainants' beer by voluntary labor associations,

members of such associations were properly sued in their individual capacity; (4) in a suit to restrain a boycott instituted by certain labor associations which were not corporations, such associations were properly designated as parties for the purpose of locating the citizenship of their members, also made defendant, in order to determine the requisite diversity of citizenship to establish Federal jurisdiction.

Violations of Eight-hour Law in Kansas. The Attorney-General of Kansas rendered an opinion on September 29, 1905, that, while the eight-hour law in that State "was intended mainly to affect laborers and mechanics working by the day, still, if such persons should be working by the month as employees and not as officers, and working at the ordinary task of a laborer or mechanic, doubtless the spirit of the act would require that they work but eight hours per day, and it certainly was not the intention of the act that it could be evaded by employing laborers and mechanics at monthly rates for the mere purpose of evading the eight-hour-per-diem requirements." The contention resulted from the filing of a complaint against E. L. Overton Manufacturing Company who employed, in the construction of an electric light plant for the city of Winfield, certain electricians. These men worked more than eight hours a day, but were paid by the month.

An opinion was rendered by the Attorney-General on May 16, 1906, relative to the application of the eight-hour law to the employment of certain laborers, mechanics, and workmen at the State Agricultural College, at Manhattan, and the State University, at Lawrence. The opinion rendered was in substance that since the service required of the employees in question was of such a nature that it could not be performed by shifts of men working for eight hours each day and as none of the employees were engaged with the intent that they should work by the day or that they should be paid by the day, it was obviously not the intention of the Legislature that the eight-hour law should apply to the employment of the workmen specified. — *Bulletin of the Bureau of Labor and Industry, Kansas, 1905.*

Constitutionality of 10-hour Law for Women. — In the recent case of *State v. Muller*, 85 Pac. 855, before the Supreme Court of Oregon, it appeared that defendant was convicted of a violation of Laws of 1903, p. 148, in the Circuit Court, Multnomah County, for requiring a female to work more than the prescribed time in a laundry, and appealed to the Supreme Court on the ground that the law was unconstitutional and void, as violative of the Fourteenth Amendment to the Constitution of the United States, and of Sections 1 and 20 of Article I of the Constitution of Oregon.

The Court held that Laws of 1903, p. 148, making it a misdemeanor for any employer

to require any female to work in any factory, laundry, or mechanical establishment more than 10 hours a day, does not violate the Fourteenth Amendment of the Constitution of the United States providing that no State shall deprive any person of life, liberty, or property without due process of law, nor the constitution of Oregon, Article I, Sections 1 and 20, declaring that all men have equal rights, and that no law shall grant any privileges not belonging equally to all citizens. Chief Justice Bean, in rendering the decision, said in part: "The right to labor, or employ labor, on such terms and conditions as may be agreed upon by the interested parties, is not only a liberty, but a property right guaranteed to every citizen by the Fourteenth Amendment to the Constitution of the United States, and cannot be arbitrarily interfered with by the Legislature. But the Amendment was not designed or intended to limit the right of the State, under its police power, to prescribe such reasonable regulations as may be necessary to promote the welfare, peace, morals, education, or good order of the people, and therefore the hours of work in employments which are detrimental to health may be regulated by the Legislature. . . . We are of the opinion . . . that the act in question is not void because an arbitrary and unwarranted limitation of the right to contract, but is within the police power of the State. Nor can we concur with the counsel that it is an arbitrary and unwarrantable discrimination against persons engaged in the particular businesses or employments specified, because persons in other businesses or callings are not prohibited from requiring or permitting their female employees to work more than 10 hours a day. . . . The discriminations which are open to objection 'are those where persons engaged in the same business are subjected to different restrictions, or are held entitled to different privileges under the same conditions. It is only then that the discrimination can be said to impair that equal right which all can claim in the enforcement of the laws.'"

Eight-hour Law does not Preclude the Purchase by a Contractor of Supplies of Fixtures for Public Buildings in the Open Market. — In reply to a communication as to whether Chapter 506 of the Laws of 1906 (New York), relative to the hours of labor and prevailing rate of wages, precluded a contractor, contracting to install electric fixtures, steamfitting or other plumbing fixtures in a building of one of the State institutions, from purchasing such fixtures in the open market, the Attorney-General of the State of New York rendered the opinion that the statute referred to "cannot be held to preclude the purchase by a contractor of articles in the open market, which articles may enter into the construction of buildings owned by the State or a municipality

thereof." In support of this opinion the Attorney-General stated further that, if any construction were placed upon the statute requiring the contractor to install fixtures made only by workmen employed in the manufacture of such fixtures for more than eight hours in any one calendar day, one of two things would result. The contractor, when he enters into any contract with the State or a municipality, must either "be prepared to manufacture every single item which may enter into the construction by workmen in his employ, and thus know that the statute was complied with so far as the manufacture of every item which entered into the performance of his contract is concerned, or he must purchase every such article of some contractor or manufacturer, so

operating his plant where such article was manufactured that no workman shall be permitted to work in the manufacture of such material more than eight hours a day.

"Carrying this argument to its ultimate conclusion, the workman in the mine, the workman in the furnace, and the workman in the factory manufacturing the article from raw material — all must have complied with the statute, although they may be situated in foreign countries."

For these reasons the Attorney-General believed that "it clearly could not have been the contemplation of the Legislature that any such construction was to be placed upon this statute."

EXCERPTS

Relating to Labor, Industrial, Sociological, and General Matters of Public Interest.

Pension System of the Atchison, Topeka & Santa Fé Railway Company.

The Bureau published in January, 1907, in Labor Bulletin No. 45, an article on "Railroad Pensions in the United States and Canada." Just before that Bulletin went to press, the Bureau learned of the adoption of a pension system by the Atchison, Topeka & Santa Fé Ry. Co. Not having been able to include a full statement regarding this system in the body of the article above referred to, we deem it proper that we make special reference in this Bulletin.

A general notice issued by the company on December 12, 1906, stated that the proposed pension system, therein described, would go into effect January 1, 1907, and would be administered by a "Board of Pensions," consisting of five officers or employees of the company who shall be designated from time to time by the president of the company and who shall act during his pleasure. A majority of the members of the board shall constitute a quorum for all purposes. The board shall elect a chairman from among its members and shall appoint a secretary, and it may adopt, subject to revision or veto by the Board of Directors or by the president, such rules as it may deem advisable.

On June 30, 1906, the "Atchison System" operated 8,444.72 miles of railroad, not including approximately 1,500 miles additional, which are wholly or partially controlled but not operated directly. The pension system, however, applies to all of this mileage (about 10,000 miles) and approximately 55,000 employees.

Pensions may be granted to any officer or employee who shall have been continuously in the service of the company during 15 years or more next preceding the date of his retirement and who at the time of his retirement shall have reached the age of 65 years, or who for any cause incident to his employment shall have become permanently incapacitated for the performance of the services in which he was engaged and who cannot be transferred to other work which he is able to perform. No person who shall have made claim against the company for damages on account of injury or accident occurring within three years prior to date of retirement shall be allowed a pension. No person who shall hereafter be taken into the service at the age of 50 years or more shall be eligible to a pension. Employees wholly undeserving on account of immorality or other misconduct may be disbarred. No pension shall be withheld merely because the recipient shall have other means of support or because he shall engage in some other business.

The sums which may be paid monthly as pensions are limited as follows:

For each year of service an allowance of $1\frac{1}{4}$ per cent of the first \$50 of the highest average monthly pay of the officer or employee during any consecutive 10 years of service, and, in addition, $\frac{3}{4}$ per cent of any excess of such highest average monthly pay over \$50; *provided, however*, that in no case shall the allowance made be less than \$20 nor more than \$75 a month.

In exceptional cases of long and unbroken service with first-class record, the Board of Pensions may, with the approval of the president, increase by not exceeding 25 per cent the amount of any pension allowance hereinbefore authorized.

This method differs somewhat from the usual method adopted by other railroad companies, which provide pension allowances based generally upon one per cent of the average monthly pay received for the 10 years next preceding retirement.

Changes in the Pension System of the Pennsylvania Railroad System—Eastern Lines.

Since the publication of Bulletin No. 45 by this Bureau in January, 1907, an announcement has been received from Mr. M. Riebenack, Comptroller of The Pennsylvania Railroad Company, stating that two important changes have recently been made in the Pension Department of the Pennsylvania Lines East of Pittsburgh and Erie, Pa. Past experience has indicated that in the future increased demands would be made upon the Pension Fund, and accordingly the companies interested in the administration of the Department agreed to increase the maximum annual appropriation for the payment of pension allowances from \$300,000 to \$600,000 to become effective January 1, 1907. The other change, the operations of which will more or less directly concern the Pension Department, is the recent agreement by the interested companies to advance the maximum age limit for entrance to the service, for all classes of candidates for employment, from 35 to 45 years, to become effective April 1, 1907.

Good Will Club, Hartford, Conn.

One of the most important lines of philanthropic endeavor consists in training boys for citizenship. That type of institution devoted to this purpose known as the "Boys' Club" is no new institution, but before 1880 there existed in this country but few, if any, formal organizations which could be properly called by that name. In fact, the Good Will Club at Hartford, Conn., founded in 1880 by Miss Mary Hall of that city, lays claim to being the first boys' club formally organized in New England, except the Salem (Mass.) Fraternity.

The boys' club as it exists in our large cities is perhaps one of the most potent agencies for assimilating the foreign-born youth. It appeals by its democratic methods of nominal self-government to that idealism of the lad which has been either wholly created or greatly developed as a result of his American environment. In Hartford, which has a large number of foreign born youths, the Good Will Club serves as a real assimilative center of all types of boys from native Americans to the most recent immigrant. During the winter of 1880, Miss Mary Hall had met, weekly, with a few boys, entertaining them with games, stories, illustrated papers, etc. On April 2, 1880, a meeting, preliminary to organizing a boys' club, was held, nine boys being present. At a later meeting the boys formally organized as the "Good Will Club" and adopted a constitu-

tion and by-laws and selected officers from their own members. This formal organization of the boys has continued ever since and has proved of great value. From the very small beginning the club has grown in membership until at the present time the actual registration of boys exceeds 800, and from 1,200 to 1,500 boys have been in attendance each week, while over 40 volunteer workers have been present on different evenings of the week to assist in the club work. The property and equipment owned by the Board of Trustees, incorporated in 1889, is valued at over \$20,000, while there are invested funds amounting to about \$55,000. Over \$75,000 has been received by the trustees for the purchase of the building and equipment and for the establishment of an endowment fund. About \$50,000 was contributed by two brothers alone, who were residents of Hartford. The work is maintained largely by income from investments and by current contributions to the work.

The building occupied by the Club, formerly the Hartford Female Seminary, now known as "Keney Hall," is of brick with stone trimmings, and is two stories high, not including the basement. The main floor provides office quarters, class rooms, reading and game rooms, a library and living quarters for the director and the custodian of the building and his family. The second floor provides other class rooms, a large hall with stage equipment and a commodious gymnasium equipped with gymnastic apparatus and a liberal supply of cadet muskets of the dummy variety. The basement is used for industrial classes and is equipped with a printing plant, carpenters' and plumbers' tools, and tools and implements used in teaching other trades.

As many as 50 different departments of work have been carried on. Among the more popular subjects taught are carpentry, art, wood-carving, cooking, printing, plumbing, clay modeling, and charcoal drawing. The gymnastic classes, the cadet corps, and the drum and fife band also appeal to large numbers. A class in stenography and another in Russian history have been recently organized. A "Good Will City" has also been organized on the plan of a modern city government, the object of this boys' organization being "to teach morality and citizenship by practical means and to increase the happiness of club life and the effectiveness of the teachers' work." The club savings bank reported deposits made by the boys amounting during a single year to \$131.36.

Attendance at the various clubs and classes has so greatly increased during recent years that the formerly commodious quarters are now overcrowded, and the work is accordingly somewhat handicapped. Plans have been proposed for the erection of a new building which shall meet the increased demands of this large and important institution.

Shoe Making Classes at Brockton Y. M. C. A.

The industrial education committee of the Young Men's Christian Association of Massachusetts and Rhode Island has established evening classes for shoe workers at Brockton. Great interest is attached to these classes, for the reason that the shoe industry has not previously had any educational effort made for its benefit in this country, although England has over 300 schools for shoe workers.

The courses of instruction are arranged so as to furnish that definite technical education which is required in those shoe-making operations which require considerable manual skill and intelligence. Four courses of practical demonstrations and lectures are provided, namely: For cutters, stitchers and fitters, lasters, and shapers and finishers. Each course consists of 20 lessons on the various types of machines and materials and processes which are most directly concerned with the practical branch of the shoe industry represented by the course, and 10 lectures on topics closely allied with shoe working. Each student is expected to choose from an extended list of topics the subjects which pertain directly to his trade, although any student has the privilege of attending any lecture on a subject which may be of general interest to him. The list of topics which are discussed by men well qualified as instructors through long experience in the shoe industry includes pattern making, cutting, stitching and fitting, lasting, attaching, finishing and shaping, preparing for market, physiology of the foot, treatment of leather, sole leather cutting, materials, and office management and accounting.

This course of instruction seems to have the approval of the manufacturers and superintendents, in view of the fact that present manufacturing conditions do not make for intelligent workmen. Being a part of the machines which they operate, the workmen heretofore have received no training apart from the one specialized operation on which they were engaged. To counteract this tendency the Brockton plan offers instruction at night in the broad principles of shoe manufacturing as well as in processes allied to the particular one on which any individual may be employed during the working day, thus affording any workman the opportunity to advance in shoe making industry through extra study and effort.

The classes meet at the Association Building in Brockton twice a week. The courses of instruction began on October 17, 1906, and within a month 50 men had enrolled. The class fee is \$5 for the entire course or any part of it.

Eradication of Tuberculosis from Factories.

A determined effort is being made in Providence, R. I., to stamp out tuberculosis. This

movement was begun by Dr. Frank T. Fulton, who is trying to bring about a general effort among physicians to rid the city of the disease by intelligent treatment. The Brown & Sharpe Mfg. Co., employing about 4,000 workmen, is actively co-operating in this work, and at its shops the company has posted a notice calling the attention of the employees to the fact that there are in Providence about 1,500 cases of tuberculosis, and urging those mill employees having a cough, however slight, to consult the physician whom the mill authorities have provided, free of expense to the employee. Some of the employees took advantage of the privilege of their own accord, and others were with more or less effort induced to submit to examination. A number of the men were found to be affected, and of these some went to the State Sanitarium and others were urged to take up open air work, and wherever possible the company found such work for them, pending the time when they could return cured to their old employment. No person affected was permitted to remain in the works, and further sanitary precautions were taken to prevent the spread of the disease through the possible existence of its germs in the shops of the company.

No statement as to the permanence of the cures can be made as yet, but it is stated that some men, who had undergone treatment for tuberculosis, have returned to work showing great improvement in health, while the general health of the whole force of workmen has been improved and the danger of infection has been removed.

Certain textile factories in Providence have also co-operated in this movement and already report favorable results. These progressive manufacturers, acting in harmony with members of the medical profession in Providence, are doing the work voluntarily. The prevalence of this dread disease in nearly all of the large manufacturing establishments throughout the country is being recognized, and it is probable that strict regulations governing the treatment of the disease in factories will become the subject of legislation in the near future. — *The Iron Age*.

British Workmen's Compensation Act.

Consul Albert Halstead, of Birmingham, submits the comprehensive summary of an English paper on the enlarged scope of the British Workmen's Compensation Act, which becomes operative on July 1. The main features are as follows:

The new act extends compensation for injuries to almost the whole population, instead of the limited workers in dangerous occupations. It brings certain diseases within the category of "accidents." It takes away the present right of the employer to set up as a defence, in cases where death or serious permanent disablement has resulted from the acci-

dent, that the workman by his serious wilful misconduct brought about the accident and the injury.

The amount of compensation varies according to the injury and the wages earned. If the injury causes death and the workman leaves persons wholly dependent on his earnings, the amount is a sum equal to the wages earned in the same employment during the three previous years, or \$730, whichever is the greater. Where the accident causes total or partial disablement, a weekly payment not exceeding £1 (\$4.86) is provided, but otherwise it may be any sum up to half the average weekly earnings of the workman.

The act may at first work some hardship. Many small shopkeepers or householders may feel it very inconvenient to make a weekly payment of \$2.18 or \$2.43 to some injured servant. There is no way of making it a term in the contract of employment that no compensation shall be payable or that the servant is to take all risks, and the alternative to direct liability is some form of insurance. Employers must, therefore, take steps to put "their houses in order" during the next few months.

The Birmingham Chamber of Commerce proposes to urge national insurance on the German plan as a substitute for the new law, and memorials looking thereto are to be addressed to the Government officials. In Germany the employer bears all the cost of accident insurance; the workmen bear two-thirds of the cost of sickness insurance, the remaining one-third falling on the employer, and the State subsidizes the old-age insurance funds contributed by the working classes. — *Daily Consular and Trade Reports No. 2782.*

Women's Wages in England.

A pamphlet published by the Women's Industrial Council of England on women's wages in England contains an interesting account of the conditions of women workers with regard to their wages and hours during the nineteenth century.

One of the conclusions arrived at in the report is that the rise in women's wages has evidently been caused by the progressive restriction on child labor; the reduction of child labor has increased the demand for girls and women, and thereby raised their wages. The statistics, it is said, seem to show that high wages of women coincide with low wages of men. The writer advocates a still further restriction of the employment of children and making more young people half-timers in order to enable them to take courses in technical education. — *The Labour Gazette, Canada, August, 1906.*

British Census of Production.

Consul Rufus Fleming, of Edinburgh, reports concerning the passage of a bill by the British Parliament to secure reliable statistical

returns of the country's industrial products, somewhat similar to the manner in which the United States has long pursued. The law is called a "Census of production act." Under its provisions a return must be made in 1908, and subsequently, at such intervals as may be determined by the board of trade, of the output, the number of days worked, the number of persons employed, the power used or generated, etc., in all trades where production is carried on, including business where work is given out to be executed elsewhere than on the premises of the person or firm making the return.

The law applies to all factories and workshops, mines and quarries, buildings and alterations on buildings, all works of construction such as railroads, canals, tramroads, harbors, docks, sewers, roads, reservoirs, laying of water or gas pipes, telegraph and telephone lines, etc. It does not ask for a return of wages paid or of capital invested in the industries, but is restricted to production and employment. It would seem that municipalities are placed on the same footing as other employers by a clause which provides that "the exercise and performance by a local or other public authority of the powers and duties of that authority shall be treated as the trade or business of that authority." Thus, returns must be made of public gas works, waterworks, electric-light plants, tramways, and other municipal operations. In short, Parliament has given to the board of trade the means of fully ascertaining the volume of production and of business and the conditions of occupations in every department of industry, excepting agriculture, fishing, and forestry, which this act does not cover. — *Daily Consular and Trade Reports No. 2795.*

The Feeding of School Children.

In the *Yale Review* for November, 1906, Mr. C. S. Loch presents the results of a study made by him in London of the question of public provision of midday meals for school children. The facts reported refer particularly to the movement in England, but methods adopted in other countries are also described by way of illustration.

In England, during the past generation, thought and effort have been directed along two lines. Charitable and social endeavor and experiment, represented particularly by the work of the Charity Organization committee, has in part consisted of actual dispensing of dinners to needy children and, in part, of more general aid brought through the medium of the family. Through social and scientific investigation, official bodies and individuals have attempted to ascertain with exactness the physical and mental condition of school children. Both actual experiment and scientific investigation have established the conclusions that provision of midday meals for school children as a method of relief is confessedly

incomplete; that there should be an individual treatment of each case; that the proportionate number of children actually in need of food is small; that the numbers are not large enough to justify a State or municipal supply of food; and that a more fundamental need of a family nature is at the basis of the problem.

The inquiries from a social and scientific point of view showed, furthermore, that the dietetic, social, and industrial changes during recent years have resulted in the provision of a more varied but probably less nutritious food for the poorer classes. The mother in many cases has become a joint bread-winner and less a mother and housewife. In consequence there is a minimum of home cooking, while cheap ready-cooked provisions from the grocer's and baker's shops are substituted. Furthermore, children receive less of the mother's care from the day of their birth, which results in a lack of vitality. Although the combined income of the parents in many cases enables them to provide more food, their children often suffer more from "ill-feeding" than from "under-feeding." The condition of the laboring classes has undoubtedly improved of late years, but for school children of the very poor some provision for midday meals seems even yet necessary. The expense involved may be borne by benevolent agencies or by the State or municipality. Wherever charitable funds have been provided not over three per cent of the school children have been furnished with free dinners; accordingly charitable resources seem to be insufficient for the purpose.

Various systems of State and municipal aid have been tried and suggested, ranging from entire to partial payment of the cost from public revenue, and providing for all or only the most needy of school children. In Rome, free meals to all children were at first provided from contributed funds, but later a charge was made. Now one-half the cost of each meal is collected from each child, while the municipality and benevolences provide the balance. In Paris, the cost is paid largely by sale of tickets, and necessitous children have free tickets; private benevolences are small. The question of supplying an evening meal is under consideration. In Austria-Hungary and Belgium, in the cities and larger towns, there is usually a midday meal provided for indigent school children by the municipality or by some association subsidized by the municipality, but no steps are taken to recover from the parents and usually no tickets are sold. At Copenhagen, all children at the free schools may have the midday meals, the expense being paid by the municipality, supplemented by contributions. In Berlin, a voluntary association provides the meals without municipal aid. In New York, Chicago, and Philadelphia there are no contributions from public funds.

The chief objections to the public provision of midday meals for school children are: That

many children whose parents are well able to pay for the meals obtain assistance without cost, thus pauperizing and encouraging the parents to turn their responsibility for their children over to the State; that a partial charge for the meals does not moralize the proceedings nor can a fair proportion of the cost be recovered from the parents; that a subsidization of parents' wages through partial public maintenance of their children would result in a fall of wages.

The proper solution of the problem of providing food where it is found necessary to enable the children to devote proper attention to their lessons appears to be dependent upon larger considerations than mere attention to the immediate need. The appointment of medical officers to examine and supervise matters from the standpoint of general health and actual home conditions, who shall work in conjunction with charitable organizations and voluntary workers in meeting the fundamental problems of family life, seems to be the only adequate and thorough remedy available. As the people advance in family and social life and character, the demand for midday meals will grow less. On the other plan of indiscriminate provision the increase in supply would only stimulate the demand, and the insufficient remedy would be only provocative of the evils which it was intended to meet.

High Cost of Living in Germany.

In a public address recently delivered by the mayor of Stuttgart, a German city having a population of 247,000, that official quoted from the calculations of the statistical bureau, which show that the meat consumed in Stuttgart for the last twelve months cost 2,630,000 marks (mark = 23.8 cents) more than that of the year before. The city's consumption of agricultural products for the last year, compared with that of the year 1901, shows an enhanced cost approximating 5,000,000 marks, of which 1,500,000 must be attributed to the meat tariff. Besides this, the city, owing to the higher cost of living, had to raise the wages of laborers and of officials in its employ, making an increased expenditure of 330,000 marks, which has to come out of the pockets of the taxpayers. From other German cities come statistical reports of similar import. — *Daily Consular and Trade Reports No. 2783.*

Agricultural Labor in Russia.

In a report on "Russia's Wheat Surplus" recently issued by the Bureau of Statistics of the United States Department of Agriculture, the conditions affecting the character and supply of agricultural labor in Russia are described by Dr. I. M. Rubinow, Economic Expert in the Division of Foreign Markets of the Bureau.

The rural population of Russia includes over 110,000,000 persons, constituting over 87 per cent of the total population. Of this rural

population, the greater part, including women and children as well as men, is engaged in farm labor during the planting and harvesting season. The general poverty of the peasantry, the extreme simplicity of household duties, and the surviving traditions of the former system of serfdom all conduce to keep the peasant women and girls in the ranks of agricultural laborers.

The short Summer in the greater part of Russia crowds all the agricultural labor into a short period of three or four months. During the harvest time, therefore, all the agricultural population, old and young, women and children, often work 16 to 18 hours a day, while the long Winter is a period of comparative idleness.

Under the act of emancipation it was proposed to provide each peasant with sufficient land for support of the family while domestic servants were the only serfs to be set free without land. But as a result of insufficient allotments and their further gradual reduction with time, coupled with a rapid increase in peasant population, the necessity of paying taxes, and the insufficient returns from small allotments, some wage work is absolutely indispensable for most of the peasantry. The peasant without horse and implements often finds it more advantageous to rent his own allotment of land and become a hired agricultural laborer. Frequently the peasant laborer lets his wife and children cultivate his allotment, with the help of additional hired labor, while he himself works for wages elsewhere. Thus, while peasants may have land allotted to them, they may not be generally called independent farmers, but rather agricultural laborers working wholly or in part for large estate holders.

In certain sections of Russia, particularly the southern and southeastern provinces of European Russia, there is annually a scarcity of agricultural labor during the Summer months, which is relieved to a great extent by annual migrations to those regions from the central and western provinces where there is a large surplus of labor. Every Spring thousands of men and women and boys and girls start southward, on foot and by rail, from the central provinces to the steppes of the east and southeast. This great migratory body is a very composite one, consisting of well-to-do peasant families who have a surplus of human and animal labor; failing farmers, who find it difficult to keep up their independent farming; laborers' families without any visible means of support except perhaps a house to live in; individuals absolutely without personal property; and, finally, wandering agricultural laborers. Because of the unsystematic migratory movement and the variability of harvest in the southern steppes, the results of such migration

are very uncertain, and often great suffering and starvation are experienced by the traveling laborers.

Many different kinds of labor contract are in vogue in Russia. The agricultural laborer proper may be hired for the term of one year, for the whole Summer, or by the day. The payments may consist of money wages only or wages with board and room. The board may be served at a common table or distributed in definite monthly rations of raw food stuffs. Often the peasant is hired together with his horse and implements. In many cases a definite payment for plowing or harvesting a dessiatine of land, or a single payment for all work connected with tilling a certain parcel, is made. Occasionally the peasant receives a share of the grain harvested as payment for his labor, or, on the other hand, he may pay the estate owner a definite rental for the use of the land.

The extreme poverty and the low standard of living of peasants from whom the agricultural laborers are recruited assures a low level of wages for agricultural labor. According to an official investigation embracing the decade 1882-1891, the average annual wages for a male agricultural laborer were less than \$32 or, including subsistence, about \$55, while for females the annual wages were less than \$18 or, including subsistence, less than \$40. The wages for the Summer season of five months were almost equal to the annual wages, being \$22 for the male and \$13 for the female laborer. The above wages were average wages for the whole decade and covering the whole of Russia. It must be borne in mind that the actual wages varied in the several agricultural regions of Russia and from year to year. Thus, in the South annual money wages under contract have ranged between \$60 and \$25, while in southwestern Russia they have been known to drop to \$10 for a male and \$7.50 for a female laborer.

More recent data covering daily wages for different seasons are available. During the five-year period 1897-1901, the average daily wages of male agricultural laborers without board were 26 cents during plowing time (May), 33.8 cents during mowing time (June), and 33.7 cents during harvesting time (August), while the corresponding wages for females were 16.3 cents, 20.1 cents, and 22.5 cents. The wages of the female workers are usually from one-half to two-thirds of the wages of the male. As shown, the highest wages are paid during the Summer months, while on account of lack of work during the winter months practically no money wages are paid. A gradual increase in agricultural wages within the last 15 years has been observed generally throughout Russia.

STATISTICAL ABSTRACTS.

Clay and Pottery Products.

The total value of the clay and pottery products in 1905 was \$135,352,854, of which Massachusetts produced \$1,888,965, ranking fifteenth of all the States. The kinds and values of the products in Massachusetts were as follows:

KINDS.	Value
Brick, common, ...	\$1,110,510
Red front, ...	27,700
Fancy colored front, ...	16,000
Ornamental shaped, ...	14,200
Pottery, red earthenware, ...	36,980
Stoneware, ...	181,771
Cream colored ware and white granite ware, ...	66,000
China (porcelain), ...	5,000
Other pottery products, ...	3,892
Architectural terra cotta, ...	10,846
Fireproofing, ...	92,385
Roofing, floor, and encaustic tile, ...	89,543
Fire brick, ...	103,228
Other terra cotta products, ...	128,010
All other products, ...	2,900

It is said that the only crackleware produced outside of the Orient is made by a pottery at Dedham, Mass. At present two kilns are operated and only two leading varieties of pottery are produced. Both have a gray body, resembling true porcelain, and are fired at a high temperature. To one of these is applied the colored glazes discovered by the proprietor, some of which possess a great depth and brilliancy, while others have an exquisite softness of color. Both varieties of coloring are the result of the intense heat of 2,000° to 2,500° F., at which they are fired. These glazes are all dark colored, and range through various shades of red, green, and olive. The other product of this pottery is the gray crackleware, similar to that just described, except in color, and usually decorated in blue. This ware is characterized by a crackle comparable to that of the best Chinese and Japanese potteries.

In 1887 a plant was established in Boston for the manufacture of tiles, and five years later the use of plastic molds for the production of these tiles was introduced. The proprietor, who has been most active in the development of this ware, early came under the influence of the modern French grès, and began experiments that have resulted in the production of the full or lusterless surfaces that are so well known. The results of his investigations were applied to architectural decorations, to garden pottery, such as jardinières and lanterns, and

especially to art pottery. The latter is a hard, dense ware, fired at a great heat, and possesses as its characteristic quality an enamel of great delicacy and softness. All this ware is modeled by hand, and the motives of the designs are taken from common forms in plant life, such as the mullein leaf, slender marsh grasses, the lotus or the tulip, which are treated in a conventional way. The product is further enriched by decoration in low relief, done while the clay is still in a plastic state. The designs are drawn and incised or modeled upon the surface, after the form or profile of the vase has been fixed by the potter. The colors are greens, pinks, and yellows. A special claim for recognition comes from the fact that this ware is made exclusively from American clays, coming from deposits in New Jersey and at Martha's Vineyard.

A factory in Chelsea began the manufacture of art tiles about the year 1877, and for some years its products were famous. The tiles were characterized by a marked originality, both in style and design, which has caused them to be imitated both at home and abroad. Gradually, however, the firm's interest in tiles declined, and they turned their attention to the manufacture of art-tile soda fountains, in the production of which they achieved a high reputation. Within the last few years, however, they have renewed their interest in the earlier work, and have produced both modeled and pressed tiles, made from New Jersey and Pennsylvania clays in combination with foreign clays, and characterized by highly colored glazes. They also produce some art faïence ware that deserves mention.

Glass Manufacture.

Bulletin Number 62 of the Bureau of the Census contains some interesting facts relative to the manufacture of glass and glassware in Massachusetts according to the Census of 1905. Compared with the total product of the United States this Commonwealth ranked seventh in 1880, fell to tenth in 1890, held the same rank in 1900, but rose to ninth place in 1905. The product value in 1905 was \$1,011,373, being 1.3 per cent of the total value of the United States. The number of men employed, 16 years of age and over, was 729, the women over 16 years of age numbered 96, and the number of children under 16 years of age was 30. The kinds and value of products were as follows: Pressed and blown glass, \$558,911; bottles and jars, \$50,000; all other products, \$402,462; total value of products, \$1,011,373.

One factory in Massachusetts has earned well-deserved recognition for the high grade of its art glass. Although the variety of glass which it produces can hardly be called distinctive, still the excellent quality of the body (for only the most carefully selected materials are used) is readily recognized, and the shapes, some of which are adapted from antique and medieval forms, are well chosen. This company makes art glassware, such as vases, decanters, rose bowls, drinking glasses, and finger bowls in crystal, and also in green, ruby, and opal, either plain or decorated with gold. The application of gold is perhaps the most distinctive feature of this company's products, although the bronze-green objects made by it are unique. Specimens with a glint or iridescence suggesting the hues of a variegated silk are remarkably praiseworthy.

Labor Statistics of California.

The Twelfth Biennial Report of the Bureau of Labor Statistics of California for 1905-1906 was issued in November, 1906. The Bureau was established in 1883, and Mr. W. V. Stafford has been Commissioner since 1903. Nearly all the material gathered prior to the disastrous fire of April, 1906, was destroyed at that time, consequently the report under review consists almost entirely of material gathered since the fire occurred. Notwithstanding that fact, much valuable material has been presented.

Statistics of crime, divorce, and marriage, which the Commissioner was instructed by the Legislature to collect, are presented as "Social Statistics" in the first part of the report. The information on these subjects was furnished by the county officers of the State, and the compiled returns furnish valuable suggestions as to the compilation of similar returns in other States.

Further divisions of the report treat of the Chinese and Japanese, their number and condition; the condition of farm labor in the State with statements of daily and monthly wages paid; wage statistics pertaining to railroad construction, steam and electric railways, stores and factories (extended treatment by industry and occupation), gold mines, lumber woods and sawmills. The report includes also material relative to factory inspection, child labor, the work of private employment agencies (over all of which the Bureau exercises jurisdiction), and a full statistical report on strikes and lockouts for the five years ending December 31, 1905, showing locality, cause, number of establishments affected, duration, number of strikers, number of persons thrown out of employment, and final outcome of the labor disputes.

Under the caption "San Francisco Rehabilitation," the work of the Free Employment Bureau, operated for four weeks in May, 1906, following the fire, was reported upon; the daily wages in certain selected occupations in the San

Francisco building trades on June 10 and on August 20, 1906, were shown; and a table was presented, showing changes of rents in certain localities of the city from April 18 to September 1, 1906.

A brief statement relative to welfare work in the State was submitted, and the report concluded with a reprint of labor laws passed by the Legislature in 1905 and the decisions of the Supreme Court affecting child labor laws.

Industrial Statistics of Pennsylvania.

The Thirty-third Annual Report of the Bureau of Industrial Statistics of Pennsylvania for the year 1905 was issued in August, 1906. The Bureau was established in 1872, and Mr. Robert C. Bair has served as Chief since 1903. The report under review forms Part III of the Annual Report of the Secretary of Internal Affairs for 1905. It presents comparative statistics of manufactures for each of the ten years 1896-1905, showing capital invested, value of materials used, days in operation, persons employed, aggregate wages paid, value of product, average yearly earnings, average daily wages, quantity of product and other facts for 710 establishments representing 84 distinct branches of industry. The textile industry is independently considered, 487 establishments being reported upon. Further data pertaining to the production of pig iron, iron and steel, tin plate, anthracite, bituminous and river dredged coal, and coke are presented, together with material relating to strikes and lockouts in the several industries of the State showing the number arbitrated and not arbitrated, the duration of strikes and other facts. Other statistics show the average house rent paid by employees and the number of employees owning their own homes. Trade conditions in the several industries of the State for the year 1905 are also reported.

Industrial Growth of Canada.

The report of the Secretary of State of Canada for 1905 indicates in various ways the prosperity and progress of the country. It is shown that 293 companies were incorporated during the year, compared with 206 in 1904. The total authorized capital of new companies incorporated in 1905 was \$99,910,900, and the capital of existing companies was increased by \$9,965,000. In 1900 the capital of the new companies amounted to only \$9,558,900 and the increased capital of existing companies was \$3,351,000.

Another evidence of the growth in Canada is shown in the number of naturalizations reported to the Department of the Secretary of State. Over 10,000 naturalizations were reported to the department for 1905. The revenue of the department derived from fees amounted to \$65,589.65 during the fiscal year ended June 30, 1905, compared with

\$58,256.35 in the previous fiscal year. — *The Labour Gazette, Canada, August, 1906.*

Diseases of Occupations.

During the year 1905 the total number of cases in the United Kingdom reported in accordance with The Factory and Workshop Act of 1901 was 663, of which 592 were cases of lead poisoning, 12 were cases of other poisoning, and 59 were cases of anthrax. Of the 592 cases of lead poisoning, 90 occurred in white lead works and 84 in the china and earthenware industry. The number of cases of lead poisoning has declined year by year since 1901, but the number of deaths from this cause shows some fluctuation, the greatest number having been 34 in 1901, and the least 14 in 1902, while there were 23 deaths from this cause in 1905.

In 1905 there were 12 cases of mercurial, phosphorus, and arsenical poisoning, resulting in one death. There were 59 cases of anthrax, of which 18 resulted in death.

The percentages of cases resulting in death in 1905 were 3.9 per cent for lead poisoning, 8.3 per cent for mercurial, phosphorus, and arsenical poisoning, and 30.5 per cent for anthrax.

The fatality of each of the several diseases was higher in 1905 than the mean fatality for the period, 1901-1905. — *Board of Trade Labour Gazette, London.*

German State Insurance.

During the last 25 years \$555,750,000 has been paid out for sickness, \$232,750,000 for accidents, and \$13,500,000 for old age. The sum of \$312,500 was expended daily on the combined objects; the total of the various sums is \$375,000,000; the total amount paid in since the law was passed is \$1,656,750,000; and sixty million persons have profited by this legislation. — *Boston Transcript.*

Strikes in Spain, 1905.

There were 24 strikes in Spain in 1905 against 25 the year previous and 74 in 1903. The strikers numbered 1,676, against 11,047 in 1904 and 61,174 in 1903. The total losses caused by the strikes were \$1,532,615 in 1903, \$336,090 in 1904, and only \$35,222 in 1905.

Most of the strikes last year lasted only a day or two. In nearly every case the refusal of the employers to take back workers whom they had found it necessary to dismiss was the cause of the trouble. Many labor unions voluntarily wound up their affairs during 1905, owing to their membership falling off. — *Daily Consular and Trade Reports, No. 2725.*

Population, Argentine Republic, 1905.

On December 31, 1905, the population of the Argentine Republic was 5,728,197, an increase of 268,169, or nearly five per cent in a single year. Of this increase about one-half is attributed to immigration. Thus the total number of immigrants during the year 1905 was 177,117. The great increase in immigration which began in 1904 and continued during 1905 was still more pronounced in 1906 as indicated by figures for the first six months, during which period 152,406 immigrants were admitted. — *Monthly Bulletin of the International Bureau of American Republics, December, 1906.*

Census of Quito, Ecuador.

The census of the city of Quito taken on May 1, 1906, showed the total number of inhabitants to be 50,841, of whom the males numbered 22,763 and the females, 28,078, a proportion of 123.35 females to 100 males. There are 31,800 above the age of seven who are able to read and write and 10,373 illiterates. In the 1,791 private dwellings in the city live 45,552 people, or an average of 25.35 persons in each house. There are 1,365 foreigners in the city, of whom nearly one-third are in schools, convents, monasteries, and houses of charity, leaving 934 engaged in private business. — *Monthly Bulletin of the International Bureau of American Republics, December, 1906.*

Census of Rio de Janeiro, Brazil.

A recent census of the city of Rio de Janeiro showed a population of 811,265. There was a noticeable disparity between males and females, the males numbering 463,115 and the females 348,150, or 57 and 43 per cent, respectively. — *Monthly Bulletin of the International Bureau of American Republics, December, 1906.*

CITY OF BOSTON—POPULATION.

The following table exhibits the estimated population for 1906 for the city of Boston by wards, divided into males and females and into native born and foreign born. These estimates are based upon the average rate of increase each year as shown by the increase between the censuses of 1900 and 1905.

WARDS.	Total Population	SEX		NATIVITY	
		Males	Females	Native Born	Foreign Born
Totals, ...	606,216	295,584	310,632	392,658	213,558
Ward 1, ...	25,885	12,790	13,095	17,219	8,666
2, ...	26,370	14,316	12,054	14,612	11,758
3, ...	15,095	7,573	7,522	10,816	4,279

City of Boston — Population — Concluded.

WARDS.	Total Population	SEX		NATIVITY	
		Males	Females	Native Born	Foreign Born
Ward 4,	12,731	6,430	6,301	8,893	3,838
5,	12,852	7,020	5,832	8,408	4,444
6,	30,553	16,874	13,679	11,891	18,662
7,	15,883	9,171	6,712	8,645	7,238
8,	31,341	17,109	14,232	13,423	17,918
9,	22,491	11,619	10,872	13,076	9,415
10,	24,249	10,917	13,332	17,362	6,887
11,	22,733	8,589	14,144	15,113	7,620
12,	22,188	9,796	12,392	15,225	6,963
13,	22,066	11,406	10,660	12,864	9,202
14,	22,551	11,201	11,350	15,375	7,176
15,	20,672	9,991	10,681	14,365	6,307
16,	22,309	10,530	11,779	16,078	6,231
17,	24,734	11,934	12,800	16,663	8,071
18,	22,551	11,066	11,485	15,247	7,304
19,	29,765	14,043	15,722	19,306	10,459
20,	42,556	19,384	23,172	31,525	11,031
21,	27,037	11,753	15,284	19,342	7,695
22,	28,250	13,300	14,950	18,871	9,379
23,	26,916	12,906	14,010	19,083	7,833
24,	32,251	15,261	16,990	23,630	8,621
25,	22,187	10,605	11,582	15,626	6,561

INDUSTRIAL INFORMATION.

[This department of the Bulletin will contain information valuable to the manufacturer, merchant, and exporter, and the public generally. It is based upon the daily reports of the Bureau of Manufactures of the National Department of Commerce and Labor, as well as upon original reports filed in this Office. Those who are interested in the subject may obtain copies of the Massachusetts Labor Bulletin upon application to this Office.]

Commerce in Canada and Central and South America.

The export trade of the United States for the fiscal year ending June 30, 1905, amounted to \$1,599,420,539, the largest amount of any country save the United Kingdom which was \$1,605,053,000, an increase so far as our country was concerned of \$146,409,927 over 1900, in which year we led the United Kingdom by \$35,924,112.

Notwithstanding the 33½ per cent discrimination in tariff rates on the part of Canada in favor of the United Kingdom and some of its colonies, the total United States exports to Canada have increased more rapidly than have those of the United Kingdom. In 1897, when the discriminating tariff was imposed by Canada, the United Kingdom supplied 26.43 per cent of Canadian imports and, in 1905, 23.98 per cent. In the same time the United States increased its percentage of Canadian imports from 55.40 to 58.50 per cent. But the Canadian imports from the United Kingdom are nearly all manufactured products, while those from the United States include a large percentage of raw products. Canada has taken away from the United States a large part of the export trade in butter and cheese to the United Kingdom, but that was largely the fault of the United States in permitting the export of adul-

terated and imitation butter, which has now been prohibited except when properly marked.

Trade with Mexico has been very satisfactory, though there are opportunities for a large increase. The United States takes over two-thirds of the Mexican exports, excluding precious metals, and should participate to a larger degree in Mexican imports. Owing to the cheap ocean freights from Europe the United States has no great advantage in contiguity with Mexico. The British supply Mexico and also other countries with cottons, a field in which the United States should very largely increase its trade. The United Kingdom sent in 1904 nearly \$3,000,000 worth of cotton goods to Central America, while the United States sent a trifle over one-half, or \$1,634,000 worth. If we obtained our fair share of this trade the figures would be reversed.

The United States supplies less than one-half of the imports into the States of Central America, though we purchase the greater part of their exports. Coffee could well be obtained from these Central American countries, but instead the United States gets its chief supply from Brazil, which purchases little from us in return. Guatemala, for instance, exports 54 per cent of its coffee to Germany and 32 per cent to the United States, yet the Guatemala coffee is falsely branded "Old Government

Java" in order to find a ready sale, and it is said to be the best kind of coffee. With Honduras the United States supplies 70 per cent of the imports and purchases 74 per cent of the exports. The American consul in British Honduras says that the ocean trade is "held entirely by British and Norwegian ships," although nine-tenths of the trade is with the United States, which is another illustration of the need of American shipping. Coffee is the chief product of Nicaragua, but trade with that country is practically on a stationary basis. If the United States took more of the coffee product of Nicaragua it might increase its exports to that country. As it is, Great Britain sells twice as many cotton goods in Nicaragua as does the United States. Our trade with Salvador is also reported stationary, while Germany is gaining rapidly. Cottons were the chief imports in 1904, and the United Kingdom supplied 68 per cent of the quantity consumed. The coffee was exported to France and elsewhere. These are conditions which could and should be changed in favor of the United States.

The British West Indies offer the same opportunities for trade with the United States as with the United Kingdom. This country purchases most of the products and should supply the larger part of their imports. But our exports to those islands aggregated \$9,706,654 in 1900 and five years later had only reached \$10,437,022. That was considerably less than one-third of the imports of those islands. The lack of direct steamship communication appears to be one great impediment. In 1904, the United States consul reported that 617 steamships entered Barbados, not one of which sailed under the United States flag. Jamaica sells four times as much to the United States as to the United Kingdom, but it buys more from the latter than from this country. The American consul at St. Thomas says that American business men suffer more than those of any other country from the lack of proper shipping facilities. The consul of Curaçao says practically the same thing. The British West Indies import from the United Kingdom nearly \$8,000,000 worth of cotton products and from the United States \$2,500,000 worth. Haiti and Santo Domingo with better steamship facilities import one-half of their foreign merchandise from the United States, but they sell to this country only one-fourth of their exports.

Cuba, in 1905, increased her exports to the United States very rapidly, reaching 84 per cent of her products, but she imports from this country only 44 per cent. Great Britain took five per cent of Cuba's exports, but supplied 14 per cent of her imports. Great Britain supplied to Cuba four times as much cotton goods as did the United States, reaching a total of nearly \$8,000,000 in 1904. She also supplies rice and other things that the United States

should supply, in view of the fact that this country takes nearly all of Cuba's exports.

The United States consul at Buenos Aires refers to the splendid steamship communication between Argentina and Europe and to the lack of such communication with the United States. The United States delegates to the Pan-American Congress held in Brazil went to Rio de Janeiro by the way of Europe. This inadequate steamship communication is pointed out as one obstacle in the way of increased trade with South America. Argentina buys nearly \$20,000,000 worth of cotton goods from three European countries and only \$272,700 worth from the United States, which illustrates the situation. There are great opportunities for development in Bolivia and in other South American countries.

Brazil imports from Great Britain three times as much as she does from us, but Great Britain does not take in return over one-third as much of Brazil's products as does the United States. Germany sells more to Brazil than this country, but takes in return only one-half as much as we do. Great Britain sells \$26,000,000 worth of manufactured goods to Brazil, as compared with less than \$5,000,000 sold by the United States. Whatever may be the cause of this trade situation with Brazil, something should be done to remedy it. The United States took in one year \$76,000,000 worth of goods from Brazil and sold only \$14,000,000 worth to that country.

From Chile the United States buys \$10,000,000 worth and sells to her one-half as much. To Peru, the United States sells about one-half as much as does Great Britain. The United States in 1904 exported to that country \$162,800 worth of cottons, while Great Britain exported \$2,247,406 worth and Germany, \$574,200 worth.

What American goods reach Paraguay go there without any effort, yet the consul in that country states that more could be sold there if any effort was made to that end. The United States leads in the trade of Ecuador, but goods can be brought there from Europe at less freight charges than from the United States, because the United States has no ships. As a result the United Kingdom supplies twice as much in value of manufactured goods as does the United States—largely in cottons. The steamship communication with the Guianas is so poor that it takes a month's time for exports to reach Dutch Guiana from New York; trade can not be built up under such circumstances. Uruguay consumed in 1904 \$3,363,000 worth of British, German, and French cotton manufactures and only \$56,200 worth of similar goods from the United States, which is a fair indication of the trade with that country. Great Britain exports to Venezuela five times as much cotton goods as does the United States. As raw cotton is grown in the United States it is fair to assume that, with equal facilities,

trade with South America in these goods, as in other things, ought to preponderate in the favor of the United States.

One of the principal things to be undertaken by this country in order to foster our foreign trade is the improvement of our shipping facilities. When we stop our petty wrangling over the question as to who is to profit by the subsidies which ought to be granted by the Federal Government, then and only then will we be able to take the position relative to the South and Central American countries we should occupy. America, that is, the United States, should stand in closer relations to our friends to the South than Germany, Great Britain, or France, yet if we wish to go to Rio de Janeiro in comfort we have to take ship for England and thence to Brazil. It is a regrettable circumstance that the Massachusetts manufacturers, dealers, and exporters do not exert themselves and make their energetic protest to Congress against a system which prevents our having a line of steamships to South America, instead of having to rely upon the whims and fancies of foreigners.

Inactivity of American Firms.

The following item appears in one of the Shanghai dailies: "It is of interest to note that the contract for lighting by electricity the native city of Hankow has been secured in open competition by Messrs. Poole, Lauder & Co. The successful contractors, who are also engaged in lighting the native city of Swatow, are essentially a British firm, backed by British manufacturers." On this the consul comments: "And still American firms continue to send out their circulars." This applies not alone to China, but to the richer field of commercial enterprise in South and Central America. Circulars are good, but personal representation is better.

South American Trips.

Getting Personally Acquainted the First Step to Success.

If heads of American firms would visit the commercial centres it would please the importers, merchants, and bankers, and they would receive a hearty welcome, and the effect afterwards would always be in their favor. "Yes, we know him personally," is far-reaching when one understands the customs of the Spanish-American race. Personally knowing and seeing these South Americans, the heads of the firms would be enabled to act intelligently, with a clear understanding of conditions and needs. It would also prevent confused and erroneous ideas, and furnish a knowledge that would enable them successfully to win the markets and hold them.

To Americans living in the South American republics, the past ten years has shown that the American national events have been directly tending to make us more and better known in

South America, strongly helped by the far-sighted heads of our country, who are opening the way and urging the attention of the American manufacturer to the great commercial battle ground of the Twentieth Century. Those who will visit and become known personally will benefit themselves and their country.

There is a weekly passenger steamship service from New York to San Juan, Porto Rico; Curaçao, Dutch West Indies; and La Guaira, Venezuela. A connecting line of steamers runs to Puerto Cabello and Maracaibo, Venezuela. Other lines and coastwise steamers enable Americans to reach most other points in northern South America.

Commercial Travelers.

In Mexico it is necessary for commercial travelers to have a license, and they must ascertain what is payable in the different States, the taxes payable varying considerably; in many cases municipal taxes are levied in addition to the State taxes. It is to be observed that the amount of the tax to be paid rests, within certain limits, on the decision of the local official, whose duty it is to assess the tax. A further charge of 25 per cent of the taxes leviable in the various States is made for the Federal revenue. In addition to the ordinary taxes, a Federal stamp tax of one-half per cent is levied on the value of sales effected.

Cooking Stoves for Mexico.

The cooking stoves in use in Tuxpan and vicinity are mostly of the cheaper grades, with occasional demand for a better quality with nickel fittings. A list of firms who deal in stoves and names of farmers who might be induced to substitute stoves for the present cooking appliances at Tuxpan, Veracruz, San Luis Potosi, Pueblo, and Guadalajara are on file for public reference at the Bureau of Manufactures, Washington, D. C.

Alcohol Engines in South America.

The manufacture of practical, simple, and cheap alcohol motors will meet a ready demand in Brazil. Alcohol is cheap in Brazil and most sugar-making countries, large quantities of it are exported, and immensely increased quantities could be made easily and cheaply, the present output being measured more by the demand for it than by the possibilities of production. The sugar alcohol in Brazil is used without any denaturing process. It comes in several grades, some of which are of too low degree to burn readily, but a demand for high-grade alcohol for power fuel or any similar purpose could and would be met quickly. Alcohol of export grade has been shipped from Brazil in recent years at about 40 cents per gallon. The further development of the sugar industry, which is following in-

creased demand for Brazilian sugar in Europe, will doubtless lead to the production of alcohol at a much lower cost. At present in Brazil it has few industrial uses.

Cotton Manufacturers' Exhibition.

There will be an exhibition of textile machinery, mill supplies, etc., held by the American Cotton Manufacturers' Association in Horticultural Hall, Philadelphia, during the week of May 13, 1907, when the annual meeting and convention of this association will be held in that city. No exhibition of this character has ever before been held in this country.

Wanted.

[Wherever a "file number" is mentioned in the following notes, it is to be understood that the names and addresses, together with additional information, may be obtained from the Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C. The file number must always be mentioned when writing for more definite information.]

Agricultural implements. — An Italian dealer and importer in implements and tools of all kinds desires correspondence with Massachusetts manufacturers of these lines. File No. 680.

Leather goods. — A leather-importing house in Switzerland wishes communication with Massachusetts exporters of hemlock sole leather, wax splits welting, rands, heels, box-toes, etc. File No. 678.

Optical goods. — An optical firm in South Africa desires the names of Massachusetts manufacturers of optical goods, lenses, and spectacle and eyeglass frames, with whom they may do a direct business or through export commission merchants. They also desire agencies for these goods. File No. 676.

Paper sacks. — Massachusetts manufacturers of paper sacks suitable for the transportation of Portland cement and flour are requested to put themselves into communication as soon as possible with a German merchant who is of the opinion that he can work up a very large business in Germany if prices are suitable. File No. 679.

Textiles and leather. — A firm in the Levant desires to enter into negotiations with Massachusetts manufacturers and exporters for the purchase of military cloth, military blankets, cotton cloth, woolen cloth, calf leather, and boot leather. Correspondence in French. File No. 642.

Hardware, tools, and novelties. — A commercial house in the United States, with agencies

in Chile, Brazil, Argentina, Peru, Bolivia, and Ecuador, has requests from two substantial and reliable general hardware houses in South America for catalogues of hardware, tools, and novelties accompanied by the lowest discount quotations. File No. 667.

Lard. — A Hamburg dealer wants to be placed in communication with Massachusetts manufacturers and exporters of lard who are not already represented in Germany. He is able to sell 150 to 200 tons of good American lard, and is confident that he can do a very large business if a good American manufacturer will give him the agency. File No. 690.

Desks, agricultural implements, kitchen utensils, etc. — A mercantile concern in a British colony states that it has a good opening for office desks, high-grade household furniture, wooden kitchen utensils, lawn mowers, agricultural implements and tools, etc., and desires American correspondence. The firm is very well known to American exporters. File No. 688.

Representation in France. — A Frenchman who formerly traveled twice a year through the United States for French manufacturers of woolen dress goods, and who now confines himself to the home trade, wishes to take up instead the representation in France or elsewhere in Europe of a profitable line of American goods. He states that he can furnish the best of references. Correspondence in English. File No. 669.

Lamps, stoves, etc. — A firm in Greece desires illustrated catalogues, conditions, and prices for lamps, stoves, "caminetti," and all appliances of latest design for consuming denatured alcohol. A large line of these of German make was brought into Greece and was sold out without difficulty, but the concern in question now finds that they are out of stock at a time when there is a strong demand for these articles. File No. 652.

Catalogue distribution in Australia. — Special Agent Burrill finds that sending catalogues to Australia is profitless expenditure of effort and money. He furnishes the name of a firm with offices at all the leading Australian ports which undertakes to distribute catalogues and advertising throughout Australia where they will do the most good. File No. 720.

Agents for Egypt. — Contoir Commercial, 120 Rue du Progres, Brussels, Belgium, writes: "Our branch in Cairo, Egypt, will be inaugurated this month. We should feel honored if you would cause offers of agencies to be sent to our manager, M. Armand Hubert, poste Restante, Cairo, Egypt."

PUBLICATIONS OF THE BUREAU OF STATISTICS OF LABOR.

The following issues of the annual reports of this Department remain in print and will be forwarded when requested, upon receipt of the price set against each Part and bound volume.

Annual Report on the Statistics of Labor.

1893. Bound in cloth, postage 15 cents. This report contains a special report on Unemployment, and Labor Chronology for the year 1893; this latter will be mailed separately for 5 cents.

1896. Bound in cloth, postage 15 cents. Contains, I. Social and Industrial Changes in the County of Barnstable (postage 5 c.); II. Graded Weekly Wages, 1810-1891, second part (postage 10 c.); III. Labor Chronology for 1896 (postage 5 c.).

1897. Bound in cloth, postage 15 cents. Contains, I. Comparative Wages and Prices, 1860-1897 (postage 5 c.); II. Graded Weekly Wages, 1810-1891, third part (postage 10 c.); III. Labor Chronology for 1897 (postage 5 c.).

1898. Bound in cloth, postage 25 cents. Contains, I. Sunday Labor (postage 5 c.); II. Graded Weekly Wages, 1810-1891, fourth part (postage 15 c.); III. Labor Chronology for 1898 (postage 5 c.).

1899. Bound in cloth, postage 15 cents. Contains, I. Changes in Conducting Retail Trade in Boston since 1874 (postage 5 c.); II. Labor Chronology for 1899 (postage 10 c.).

1900. Bound in cloth, postage 25 cents. Contains, I. Population of Massachusetts in 1900; II. The Insurance of Workingmen (postage 10 c.); III. Graded Prices, 1816-1891 (postage 15 c.).

1903. Bound in cloth, postage 15 cents. Contains, I. Race in Industry (postage 5 c.); II. Free Employment Offices in the United States and Foreign Countries (postage 5 c.); III. Social and Industrial Condition of the Negro in Massachusetts (postage 5 c.); IV. Labor and Industrial Chronology for 1903 (postage 5 c.).

1905. Bound in cloth, postage 20 cents. Contains, I. Industrial Education of Working Girls (postage 5 c.); II. Cotton Manufactures in Massachusetts and the Southern States (postage 5 c.); III. Old-age Pensions (postage 5 c.); IV. Industrial Opportunities not yet Utilized in Massachusetts (postage 5 c.); V. Statistics of Manufactures: 1903-1904 (postage 5 c.); VI. Labor and Industrial Chronology (postage 5 c.).

1906. Part I. The Apprenticeship System (postage 5 c.); II. Trained and Supplemental Employees for Domestic Service (postage 5 c.); III. The Incorporation of Trade Unions (postage 5 c.); IV. Statistics of Manufactures: 1904-1905 (postage 5 c.); V. Labor Laws of Massachusetts (postage 5 c.).

Annual Report on the Statistics of Manufactures.

Publication begun in 1886, but all volumes previous to 1892 are now out of print. Each volume contains comparisons, for identical establishments, between two or more years as to Capital Devoted to Production, Goods Made and Work Done, Stock and Materials Used, Persons Employed, Wages Paid, Time in Operation, and Proportion of Business Done. The Industrial Chronology which forms a Part of each report up to and including the year 1902 presents an Industrial Chronology by Towns and Industries. Beginning with the year 1903, the Industrial Chronology is combined with that for Labor under the title of Labor and Industrial Chronology and forms a part of the Annual Report on the Statistics of Labor. Beginning with the year 1904, the Annual Report on the Statistics of Manufactures was discontinued as a separate volume and now forms a part of the Report on Labor.

The volumes now remaining in print are given below, the figures in parentheses indicating the amount of postage needed to secure them:

1892 (15 c.); **1893** (15 c.); **1894** (15 c.); **1895** (15 c.); **1896** (10 c.); **1897** (10 c.); **1898** (15 c.), contains also a historical report on the Textile Industries; **1899** (10 c.); **1900** (10 c.); **1902** (10 c.); **1903** (10 c.).

Special Reports.

A Manual of Distributive Co-operation — 1885 (postage 5 c.).

Reports of the Annual Convention of the National Association of Officials of Bureaus of Labor Statistics in America — 1902, 1903, 1904, 1905, and 1906 (postage 5 cents each).

LABOR BULLETINS

OF THE

COMMONWEALTH OF MASSACHUSETTS.

These Bulletins contain a large variety of interesting and pertinent matter on the Social and Industrial Condition of the Workingman, together with leading articles on the Condition of Employment, Earnings, etc. The following numbers are the only ones now remaining in print, and will be forwarded upon receipt of five cents each to cover the cost of postage.

No. 30, March, 1904. National Trades Association — Massachusetts-born Living in Other States — Industrial Betterments — A Partial Religious Canvass of Boston — Current Comment on Labor Questions: Child Labor — Bi-monthly Record of Strikes and Lockouts — Prices of Certain Articles of Food in Toronto, Canada, and Massachusetts — Industrial Agreements — Labor Legislation in Other States and Foreign Countries — Recent Legal Labor Decisions — Statistical Abstracts.

No. 31, May, 1904. City Labor in Massachusetts — Review of Employment and Earnings for Six Months ending April 30, 1904 — Average Retail Prices in 17 Cities — Bi-monthly Record of Strikes and Lockouts — Editorial, Rev. Jesse H. Jones — Industrial Agreements — Current Comment on Labor Questions: Open and Closed Shop — Labor Legislation in Other States and Foreign Countries — Recent Legal Labor Decisions — Excerpts Relating to Labor, Industrial, Sociological, and General Matters of Public Interest — Statistical Abstracts.

No. 32, July, 1904. Child Labor in the United States and Massachusetts — Net Profits of Labor and Capital — The Inheritance Tax — Absence after Pay Day — Pay of Navy Yard Workmen — Labor Legislation in Massachusetts for 1904 — Industrial Agreements — Current Comment on Labor Questions: Eight-hour Workday — Recent Legal Labor Decisions — Excerpts Relating to Labor, Industrial, Sociological, and General Matters of Public Interest — Statistical Abstracts.

No. 36, June, 1905. Tramps and Vagrants. Census of 1905 — The Loom System — Weekly Day of Rest — Wages and Hours of Labor on Public Works — The Census Enumerators of 1905 — Average Retail Prices, October and April — Semi-annual Record of Strikes and Lockouts: Six Months ending April 30, 1905 — Labor Legislation in Massachusetts for 1905 — Current Comment on Labor Questions: Profit Sharing — Industrial Agreements — Recent Legal Labor Decisions — Excerpts Relating to Labor, Industrial, Sociological, and General Matters of Public Interest — Statistical Abstracts.

No. 42, July, 1906. Non-Collectable Indebtedness — Pawnbrokers' Pledges —

Hours of Labor in Certain Occupations — Labor Legislation in 1906 — Current Comment on Labor Questions: The Inheritance Tax — Industrial Information — Industrial Agreements — Trade Union Notes — Recent Legal Labor Decisions — Excerpts Relating to Labor, Industrial, Sociological, and General Matters of Public Interest — Statistical Abstracts.

No. 43, September, 1906. Organization of Trade Schools — Textile Schools in the United States — Convention of Labor Bureaus — Maternity Aid — Stone-meal as a Fertilizer — Injunctions against Strikes and Lockouts — Industrial Information — Industrial Agreements — Trade Union Notes — Recent Legal Labor Decisions — Excerpts — Statistical Abstracts — Trade Union Directory for 1906.

No. 45, January, 1907. Income and Inheritance Taxes — Child Labor and the Census — Cotton Manufacturing in Massachusetts in 1850 and 1905 — Railroad Pensions in the United States and Canada — Convict Labor in Massachusetts — The President on Labor Matters — Trade Union Notes — Recent Court Decisions Relating to Labor — Industrial Agreements — Current Comment: Old-age Pensions — Excerpts — Statistical Abstracts — Magazine Articles on Labor Topics, 1906.

No. 46, February, 1907. Unemployment in Massachusetts — State Free Employment Office — Insurance against Unemployment in Foreign Countries — The Metropolitan District — Population: Boston and Massachusetts — Labor Legislation: United States and Canada, 1906 — Industrial Agreements — Excerpts — Statistical Abstracts — Industrial Information.

No. 47, March, 1907. Boston's Taxpayers — Distributive Co-operation in New England — Industrial Education for Shoe Workers — Technical Education: England and the United States — Females in Gainful Occupations, 1895, 1905 — Strikes and Lockouts: Massachusetts, 1905-06. — State Free Employment Office — Labor Legislation in Foreign Countries, 1906 — Current Comment: Large versus Small Families — Trade Union Notes — Industrial Agreements — Recent Court Decisions Relating to Labor — Excerpts — Statistical Abstracts — Industrial Information.





